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CHANGING CONDITIONS IN THE MARKET FOR STATE AND LOCAL GOVERNMENT DEBT

A STUDY

PREPARED FOR THE USE OF THE

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

APRIL 16, 1976

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LETTERS OF TRANSMITTAL

April 13, 1976.

To the Members of the Joint Economic Committee:

Transmitted herewith is a study entitled "Changing Conditions in the Market for State and Local Government Debt." This study was prepared for the Joint Economic Committee as part of the committee's observance of the 30th anniversary of the Employment Act of 1946. It is one of a number of studies being undertaken by the committee to examine State and local government fiscal conditions and their relationship to the Employment Act goals of "maximum employment, production and purchasing power".

This study describes the changing conditions in the municipal bond market and their effect on the availability and cost of State and local government debt. It describes recent changes in the supply of and demand for tax-exempt securities. I believe Members of the Joint Economic Committee will find this study most helpful and informative.

The views expressed in this study are those of the author and do not necessarily represent the views of the Members of the Joint Economic Committee or of the committee staff.

Sincerely,

Hubert H. Humphrey,
Chairman, Joint Economic Committee.

April 8, 1976.

Hon. Hubert H. Humphrey,
Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.

Dear Mr. Chairman: Transmitted herewith is a study prepared by Dr. John Petersen, entitled "Changing Conditions in the Market for State and Local Government Debt." This study is the first in a series of papers being prepared for the Joint Economic Committee dealing with the fiscal condition of State and local governments. These studies are part of the Joint Economic Committee's 30th anniversary study series.

Dr. Petersen's paper describes in great detail the recent changes that have occurred in the municipal bond market. He concludes that the increased supply of and reduced demand for tax-exempt securities has increased the borrowing costs of State and local governments. He also discusses several proposals to broaden the market for State and local government debt, thus reducing borrowing costs.

The views expressed in this study are those of the author and do not necessarily represent the views of the Members of the Joint Economic Committee or of the committee staff.

Sincerely yours,

John R. Stark,
Executive Director, Joint Economic Committee.

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CHANGING CONDITIONS IN THE MARKET FOR STATE AND LOCAL GOVERNMENT DEBT

By John Peterson*

Chapter I. RECENT DEVELOPMENTS

Introduction

To pick a certain date as marking the beginning of a new era in any field is always difficult and usually arbitrary, especially when changes are evolutionary and complex with implications that continue to emerge. Nonetheless, the year 1969 can be identified as a watershed for the municipal bond market. It was in that year that tax exemption was actively debated in the Congress and defenders of the tax-free market were victorious in preserving the almost exclusive reliance upon the tax-exempt bond as the capital-raising vehicle for State and local governments. [1]

But while the political defense of the tax-exempt bond was successful, other forces unfolding at the same time would lead to new challenges for the State and local borrower and investor in the 1970's. These changes have benefitted certain borrowers and investors, but their overall impact has been to shrink the demand for the conventional debt of most governments and to make debt-financing more costly.

The more important changes in the municipal bond market and the environment in which it now must operate are:

(1) The national economy in the late 1960's passed into a prolonged period of inflation and recurring tight money conditions that have exacerbated the problems in all debt markets—and the municipal bond market in some special ways.

(2) The demand for municipal bonds has changed significantly. The major purchasers of tax exempts in the 1960's were the commercial banks, which bought municipal securities for tax shelter. By the early 1970's it became increasingly evident that banks could no longer be counted upon to maintain their previous level of demand for municipal bonds. In the absence of other large institutional support, the household sector—consisting largely of individual investors—must be relied upon to support the credit needs of State and local governments.

(3) Municipal bonds since the late 1960's have been used increasingly for other than the traditional purposes of financing school, highway, water and sewer projects. Public-purpose activities began to include

* Washington director and economist of the Municipal Finance Officers Association. The views expressed herein are solely those of the author, and do not represent the position of his employer.

[1] Tax-exempt securities are generally defined as those debt securities issued or guaranteed by states or territories, their political subdivisions, agencies or instrumentalities, and any security issued by a government that is an industrial revenue bond, the interest of which is exempt from Federal income taxation, as described by Section 103 of the Internal Revenue Code of 1954. The definition of "exempted" security in Federal securities laws parallels that used for tax exemption purposes in the tax code.

the tax exempt debt-financing of projects that were owned or operated essentially by private entities, and, ultimately, were linked to a private, profitmaking enterpise. Although the Tax Reform Act of 1969 restricted the blossoming practice of using tax exempt bonds to finance industrial development, it also left large exceptions to this prohibition. These exceptions have since led to the use of tax exempt bonds for pollution control equipment, housing market support, hospital financing, stadiums, and an assortment of publicly financed but private operated facilities.

(4) A complex array of new financing devices has appeared in response to the use of tax exemption for varying purposes. Novel financial arrangements have been designed to accommodate the legal and practical implications of new forms of public activity and, not infrequently, to bypass certain legal constraints that otherwise would limit or preclude borrowing for such purposes. Perhaps the most noteworthy of the new financing vehicles was the moral obligation bond. But other arrangements—such as advanced refunding and tax-increment financing—have led to a swelling in the supply of special purpose bonds that are nontraditional both in their use and structure.

(5) Short-term loans have become increasingly important to State and local borrowers as a result of spiralling interest rates in the late 1960's early 1970's. In 1969, a sudden surge in short-term borrowing occurred as the volume of note sales doubled. There were several reasons for this trend. The most prevalent seemed to be that governments felt released from old prohibitions against short-term indebtedness and saw temporary financing as a means to borrow more cheaply and to time long-term bond sales more advantageously. As the same time, the seeds of uncertainty and cash crises were sowed for States and localities which became too immersed in short-term liabilities and might be too dependent upon their future ability to sell bonds. These concerns over credit quality and information were crystallized by the New York City and State crisis of early 1975 and now pervade the entire municipal bond market.

(6) More attention now is being given to the fiscal condition of State and local borrowers and how information on this condition is reported and analyzed by investors. Until recently, this was a lingering, but seldom pressing, uneasiness in the market. In part, the concern about credit quality has been reflected in intermittent criticism of the heavy reliance placed by the municipal bond market upon the opinions and reporting documents of the two national bond rating agencies, Moody's and Standard & Poor. More recently, the reduced growth and obvious fiscal pressures in the State and local sector have focused attention on timely and accurate reporting to the market by the governments themselves, especially in the disclosure of material information at the time of bond sale. That concern has been reinforced by an emerging recognition of legal liabilities on the part of underwriters and issuers under the antifraud provisions of the Federal securities laws.

Changes in the municipal bond market in the late 1960's and early 1970's have occurred against the background of older and continuing questions raised about the market. These questions concern the efficiency and equity of the vast uncontrollable Federal tax subsidy involved in granting an exemption from Federal income taxes to income from State and local securities. That unique feature of municipal bonds has lowered interest costs to State and local borrowers through the years. It has also meant that part of the subsidy must be shared

with investors in the bonds. Furthermore, the tax-exempt feature of municipal bonds—combined with the financial structure of major investing institutions and their tax liabilities—has made the market highly susceptible to changing market conditions and has produced wide swings in investor group participation and the cost of borrowing.

Another persisting concern in the municipal market has been posed by certain problem borrowers. Generally, these are defined as the very small and unsophisticated governmental borrower and the large, improvident urban area. Both types of borrower may encounter difficulties when they enter the bond market to borrow from private investors. A wide variety of measures have been taken through the years to assist such borrowers, but the long-term problems of a highly diffused and variegated market remain.

The final item of concern now faced by the market for State and local debt is linked to the national worry about capital adequacy in the future. The question here is whether the municipal bond market, as presently constituted, can compete succesfully and efficiently for what appears to be an increasingly limited supply of investible capital. The issue, of course, transcends the essentially mechanical concerns of efficiency and equity in the municipal bond market. This lifts the discussion to a consideration of how much capital will be available for long-term investment by all sectors of the economy; how much of that should be claimed by the public sector; and what is the appropriate role to be played by the municipal market in allocating limited capital to State and local governments.

Although this study does not purport to answer such cosmic questions, it will review future demands for capital facilities and borrowed funds by State and local governments. This can give insights into the relative magnitude of potential demands and the ability of the present—or a modified—municipal bond market to meet those demands at a reasonable cost.

The following chapters review first the changing supply of municipal securities both in terms of the volume of debt instruments by type and maturity, and the uses for which the borrowing takes place. A discussion will follow on the questions of credit quality and information, particularly as these are reflected in the recent appearance of wide differentials in the cost of capital by region, use of proceeds, and type of instrument. At this point too the paper will discuss the current problems of special classes of borrowers, ranging from the fiscal hardships now being visited upon our largest, oldest, and particularly Eastern cities to the continuing difficulties of the smallest borrowers whose market is usually confined to local and regional markets. Next, recent developments in the compositions and strength of demand for municipal bonds will be surveyed. Special attention will be given to the recent evolution in commercial bank investment policies and its ramifications for the tax-exempt market. As a corollary, the support of other sectors—notably, the household sector—will be examined. At this point the response of State and local government borrowing to monetary and fiscal policy will be discussed, for the State and local sector has exhibited a peculiar sensitivity to changes in the availability and cost of money.

While the current performance and structure of the market present numerous problems that suggest various changes in policy, the market and the needs it meets are dynamic. Therefore, it is equally important

to judge the future capability of the market to provide capital for new and growing public purposes. This involves forecasting not only the desired level of borrowing by the State and local sector but also projecting the economic and financial environment in which these units will contest for funds from private investors.

The final section of this paper reviews an array of current and potential problems and discusses a broad selection of solutions that have been recommended. The discussion will consider the variety of objectives to be met by reforms and will compare specific suggestions for reform with their objectives. Of course, radical changes in the level and distribution of public services may alter, in turn, the size and nature of borrowing. Nevertheless, the policy options discussed are oriented towawrd borrowing and are predicated on the thesis that State and local governments will continue to rely heavily on borrowing for both long-term improvements and seasonal or occasional short-term needs.

Recent Trends in State and Local Borrowing

The volume of State and local government borrowing has increased dramatically since 1960, and the composition of the debt has changed greatly during the same period. The total of State and local bonds and notes sold rose from an annual level of $11.5 billion in 1960 to $55 billion by 1974. As a result, total outstanding indebtedness of governments grew from $71 billion at the end of 1960 to $207 billion by the end of 1974. Despite the difficulties experienced in the municipal bond market in 1975, it appears that total bond and note sales for that year will exceed $60 billion, a record amount.

These large dollar volumes and strong trends in the aggregate cloak an amazing degree of diversity within the State and local bond market. All types of government borrow in the credit markets, so the markets consist of issues of all sizes and kinds, ranging from very short-term notes to bonds with a maturity of 40 years or more. Chart I sketches some of the more significant trends in the municipal bond market. As may be noted, there seems to be a long-term reduction in the percentage of general obligation bonds sold to the total and a corresponding increase in use of the revenue bond.[2] Even more pronounced is the rapid increase in short-term notes.[3] The ratio of short-term debt compared to total bond sales reached 100 percent in 1969 and has remained at or above that level ever since.

The lower panel of chart I shows that the growth in municipal bonds has not been a smooth, upward climb but rather has been sensitive to changing financial conditions and has demonstrated a changing mix in types of debt instruments. A review of the last 15 years indicates that there was a relatively smooth growth in bond sales through 1968 at which point the market reacted negatively to the credit crunch of 1969. In 1970 and 1971 the market appeared to regain its growth and to make up some of the sales delayed by the earlier tight-money period. Subsequently, in 1972, 1973, and 1974, the market showed essentially no growth in bond sales and a continuing reliance on short-term borrowing. In 1975, the market evidently moved to a record level of sales despite high rates of interest.

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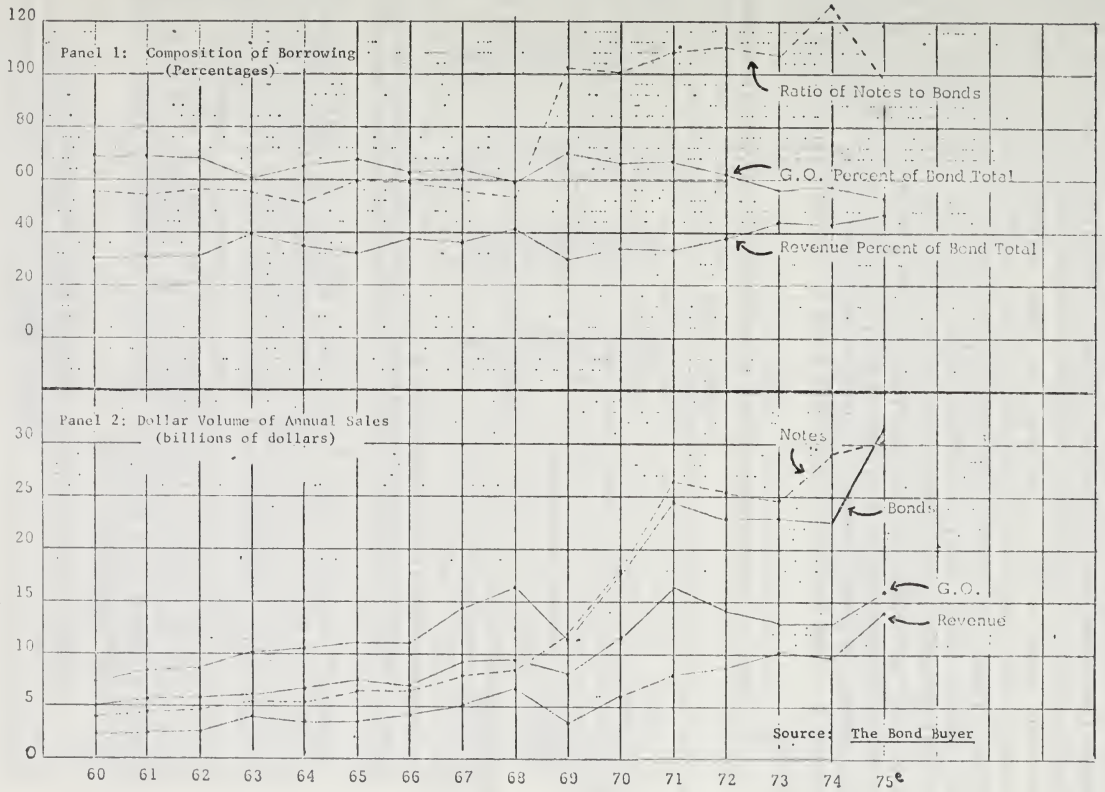
[2] The convention of the municipal bond market is to divide debt obligations into two broad categories: (1) general obligations, secured by the full faith and credit and taxing power of a government; and (2) revenue or special fund obligations, secured on the revenues or receipts of a project or special fund and not backed by full taxing power of a borrower.

[3] Short-term obligations are generally those of 1 year or less in original maturity.

Chart I
STATE AND LOCAL GOVERNMENT BORROWING
Notes, Bonds and Type of Bond 1960-1975 (est)



Also, of significance in the 1970's has been the growth of revenue bonds in comparison to general obligation securities, demonstrating an increasing reliance upon user charges and rental fees to secure debt instead of securing debt directly by taxes.

Table 1 gives a more detailed breakdown of State and local government borrowing by type of security. As may be seen, over the last 15 years there has been significant growth in the total amount of revenue bonds and also interesting changes in their composition. The rental revenue bond, which is secured on lease arrangements between the issuing authority and the actual operator of the facility, has grown from a miniscule portion of total revenue bonds sold to more than half of current sales. Many of these bonds represent debt issues sold on behalf of housing, pollution control facilities, industrial development, and various arrangements entered into by general units of government to finance public facilities outside of their own debt limitations. Therefore, it is the revenue security—and a particular class of revenue security—that is the major growth area in the municipal bond market today.

TABLE 1.—STATE AND LOCAL BORROWING BY TYPE OF ISSUE, SELECTED YEARS 1960 TO 1975 (ESTIMATE)

[In billions of dollars]

	1960	1970	1972	1974	1975 (estimate)
General obligation	4.36	11.85	13.33	13.57	16.60
Revenue	2.07	6.10	9.40	10.21	14.50
Utility	1.79	4.59	6.99	6.53	4.80
Special tax	.08	.34	.25	.46	3.80
Rental	.19	1.17	2.17	3.22	5.99
New housing authority	.40	.13	.96	.46	----------
Total long-term	6.81	18.19	23.75	24.32	31.1$_0$
Total short-term	4.01	17.81	25.27	29.54	30.0$_0$

Note: Details may not add up to totals because of rounding.

Source: Investment Bankers Association, "Statistical Bulletin"; Securities Industry Association, "Municipal Market Developments" (various issues). Estimates are the authors on the basis of sales recorded through October 1975.

Another vantage point from which State and local debt may be viewed is by the level and type of government. As table 2 illustrates, debt issuances by general units of government have diminished in importance. Here again, classes of special district debt changed in relative importance. School district debt, which represented more than 20 percent of bonds sold in 1960, dropped to less than 9 percent in 1974. Other local district debt also decreased in importance. The strongest growth element was found in statutory authority, which occurs at both the State and local levels.

TABLE 2.—LONG-TERM DEBT SOLD BY TYPE OF ISSUER, 1960 TO 1975 (ESTIMATE)

[Billions of dollars]

	1960	1970	1972	1974	1975 estimate
State	1.00	4.17	4.99	4.79	7.60
Local general government	2.54	6.21	7.25	8.66	9.50
School district	1.35	2.13	1.92	2.16	2.20
Special district	.66	1.16	1.51	1.27	1.60
Statutory authority	1.30	4.39	8.01	7.37	10.20
Total	6.85	18.08	23.69	24.24	31.10

Source: Securities Industry Association and author's estimates.

Although the definitions used are not completely consistent, the growth in special district and authority debt on the local level is reflected in the debt outstanding figures published by the U.S. Bureau of the Census.[4] The debt of local special districts (including local authorities) has grown more rapidly than that of school districts or general units of government. Likewise, State level borrowing—both general unit and authority—has grown more rapidly than that of local general government units.

The growth in authority and special district debt and the increasing reliance on lease-rental revenue obligations are clearly intertwined. Before World War II, most state and local debt was sold in general obligations. However, growing out of the Depression, there came an increasing reliance on "special fund" obligations, which are secured on a special revenue source—usually a user charge. The move toward revenue bonds was stimulated by the public housing assistance programs in the 1930's and the availability of Reconstruction Finance Corporation loans.

After World War II, several factors led to the increasing use of revenue obligations and, frequently, to the creation of special districts and authorities. These were:

(1) The widening scope of the definition of public purpose, which increased the activities for which bonds could be sold by public entities and, hence, on a tax-exempt basis (in many cases this could only be accomplished by enabling legislation creating the special-purpose district, the debt of which was payable solely from project revenue);

(2) The desire to circumvent legal limitations on general obligation indebtedness or, sometimes, the requirement for voter approval; and

(3) The desire by officials to apportion costs for improvement on a *quid pro quo* or user charge basis rather than on taxation.[5]

Investors have typically viewed limited obligation bonds as being riskier than those backed by the full taxing power of governments and have commanded a higher yield for purchasing such bonds.[6] As investor familiarity with the revenue bond grew, the interest rate differentials between it and general obligation bonds waned. Concurrently, State legislatures continued to authorize and courts approved as public purposes a great variety of facilities and undertakings, including airports, redevelopment districts, housing, stadiums, and transit facilities.[7]

The growing variety of uses of State and local borrowing are depicted in table 3, again using bond sales data collected by the Securities Industry Association and its predecessor, the Investment Bankers Association. Loans for education and transportation grew rapidly through the 1960's—and then leveled off dramatically. Two other areas, social welfare and utilities and conservation, exhibited strong growth throughout the period. There has been a pronounced change in the composition of borrowing. In 1960 education, transportation,

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[4] The Securities Industry Association data on special districts includes both State and local authorities, whereas the Bureau of the Census includes statewide authorities in the State debt figures. Unfortunately, the Census does not report the authority (as opposed to other revenue-secured debt) separately.

[5] See Lennox Moak, *Administration of Local Government Debt,* Municipal Finance Officers Association (1970), pp. 17–18.

[6] For most varieties of revenue bonds, the reoffering yields have been 15 to 20 basis point (one-hundredths of a percentage point) higher than general obligation bonds of similar credit rating. See George Hempel, *The Postwar Quality of State and Local Debt* (1971), pp. 142–144.

[7] See Frank Curley, *State and Local Public Facility Needs and Financing, Vol. 2,* Joint Economic Committee (1966), pp. 156-172.

and water and sewer bond sales amounted to $4.6 billion or 65 percent of total bond sales; by 1974 their combined share had slipped to 35 percent of total sales.

TABLE 3.—STATE AND LOCAL GOVERNMENT BONDS SOLD BY USE OF PROCEEDS

[Billions of dollars]

Purpose	1960	1970	1972	1974	1975 estimate
Education	2.28	5.03	4.98	4.73	5.00
Transportation	1.31	3.17	2.99	1.71	2.20
Utilities and conservation	1.30	3.47	4.68	5.64	7.30
Water and sewer	1.02	2.40	2.45	1.99	2.70
Pollution control (ind.)			.60	1.71	2.20
Other utility and cons	.28	1.07	1.64	1.94	2.40
Social welfare	.60	1.47	3.82	4.45	4.60
Public housing	.43	.13	1.92	1.69	.70
Hospitals	NA	NA	.50	.78	2.10
Other	.17	1.30	1.41	1.98	1.80
Industrial aid	.04	.11	.33	.50	.50
Others (general purpose)	1.53	4.20	5.30	6.50	10.50
New capital	7.06	18.00	22.12	23.51	30.10
Refunding	.05	.11	1.57	.73	1.00
Total	7.11	18.11	23.69	24.24	31.10

Source: Securities Industry Association and author's estimates.

Various aids to private business have had a major impact since 1960. Industrial development bonds—sold to build facilities for lease or resale to private companies—flourished in the early and mid-1960's and then were cut back to a trickle after changes in the allowable uses of tax exemption under section 103 of the Federal Internal Revenue Code, which took effect in 1969. However, the same legislation gave birth to a new instrument, the pollution control bond. These are issued on behalf of corporations for purposes of installing pollution abatement facilities.

Although the inability to disaggregate by purpose a substantial portion of the debt sales (other uses) somewhat fuzzes the trend in volume by function, it is abundantly clear that the "traditional" uses of debt have been supplemented by an array of new purposes. Many of these new uses are financed by special authorities with the aid of complex financial arrangements and the revenue bond.

To summarize recent trends, it is clear that State and local debt has shown dramatic shifts in the directions of increased short-term borrowing, a greater use of special authority financing, and growing use of the revenue bond. Both the general obligation and general purpose governmental borrower, while still of great importance, have seen their relative positions recede with the advent of new definitions of the public purpose and a galaxy of new borrowing instrumentalities and debt instruments to accommodate those purposes. The next chapter examines more important and, frequently controversial, new purposes for tax-exempt borrowing and new financing vehicles.

Chapter II. NEW AND CONTROVERSIAL TYPES AND USES OF TAX-EXEMPT DEBT

Short-Term Borrowing

One of the most noticeable phenomena of the 1970's has been the meteoric rise in short-term borrowing by State and local governments. Commencing in the tight money period of 1969, note sales began a steep ascent, eventually trebling by 1974, when they totaled nearly $30 billion. In that period, short-term debt outstanding grew from $11 to $18 billion.[1]

Several reasons may be cited for the jump in note sales. Clearly, many long-term borrowers, faced with the steep rise in long-term rates, were waiting for better market conditions and, therefore, sought to postpone definitive financing. Leading users of notes for interim financing have been the state housing authorities, which had $2.4 billion in short term debt outstanding in 1974.[2] Also, the pace of growth of note offerings was quickened by the sales of U.S. Government-backed public housing and urban renewal notes, which grew from $4.9 billion in sales in 1968 to $10.5 billion by 1974. A third factor was that, as the 1970's progressed, some units were finding short-term borrowing against current deficits a convenient, if misguided, way to forestall increased taxes or reductions in expenditures. New York City, which alone accounted for one quarter (or $7 billion) of short-term note sales in 1974, was no doubt the leading, if not the sole, practitioner of this use of short-term credit.

A fourth kind of demand was created by governmental units that preferred not to pay off their short-term indebtedness with available assets but rather to keep the latter invested in taxable obligations at higher rates of return than they needed to pay out on their own debt. Although Federal arbitrage regulations have cast a pall over this practice, it is undoubtedly the case that governmental debators, even when faced with relatively high short-term tax-exempt rates, may find it worthwhile to stay in debt and to use other funds to earn a profit on the differential between tax-exempt and taxable yields.

Although the high levels of short-term borrowing are worrisome to some observers, the fact is that the use of short-term debt in the State and local sector continues to be mild in comparison to other sectors. Short-term market debt comprises only 9 percent of all the sector's outstanding debt in comparison to nearly 50 percent for the nonfinancial corporate sector.

The traditional use of short-term borrowing in anticipation of locally levied taxes that may legitimately be expected to be collected within the revenue cycle always has been used and is widely accepted.

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[1] Federal Reserve Board of Governors, *Flow of Funds.*
[2] "State Housing Finance Programs," *Moody's Bond Survey* (Jan. 6, 1975), p. 1795.

However, the early 1970's saw the introduction of a new type of short-term borrowing—borrowing done in anticipation of assistance payments due from another level of Government and, therefore, dependent upon the appropriation process of that unit.

Finally, another traditional means of interim financing, the bond anticipation note, also has ben used more and more. With the recent turbulence in the financial markets this poses new problems, because paying off the short-term debt is often dependent solely upon the future ability of the borrower to convert his short term liability into long-term debt.

This adds a new element of risk—the inability to borrow long term because of future problems—of which investors are increasingly conscious in the wake of the New York Urban Development Corporation default of February 1975. Such moneys were rampant by the end of 1975 when the municipal note market was in serious disarray in the Eastern United States, primarily in reaction to the protracted crises in New York State and surrounding areas. Recent estimates are that the cost of short term borrowing has leaped by 2 to 5 percentage points for borrowers in New York State because of credit concerns.[3]

Moral Obligation Bonds

The moral obligation bond, which has greatly widened the scope of tax-exempt financing, is now under heavy fire—both in the markets and by public critics. Use of the financing device began in 1960 with the creation of the New York State Housing and Finance Agency and has since blossomed to more than $8 billion in outstanding bonds. The distinguishing feature of the moral obligation bond is its backing by a unit of government which agrees to meet any deficiency in a reserve fund established to back up the debt.

The unique attribute is that although the government is morally obligated and authorized in the future to make such deficiency payments, the unit is not legally liable for the debt, and it does not constitute part of the debt of the unit.[4]

Needless to say, the ability to finance certain projects by this back door or contingent guarantee has proved most attractive, especially in view of the fact that revenue-supported projects need not be approved by public referendum (because their debt is not that of the sponsoring and morally obligated unit).

Typically, a public corporation or agency is formed for the purpose of selling—and ultimately retiring—the tax-exempt bonds. As in other areas of debt finance, New York State gave the initial impetus to

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[3] See Ronald Forbes and John Petersen, "Costs of Credit Erosion in the Municipal Bond Market," Municipal Finance Officers Association (revised Dec. 1975), p. 17. Also, Stephan Chilton et al., "Trends in Short Term Borrowing Costs for New York State Localities," State University of New York at Albany (Dec. 1975).

[4] "The mechanics of the 'moral obligation' generally involve the following steps: (1) A capital reserve fund is created and funded; (2) any deficiency by reason of withdrawals or otherwise is certified by the chief officer of the agency to the top officials of the state; (3) the certified deficiency funds are paid over to the capital reserve fund by the state. The third element is generally hedged, however, and the statement is usually in bold type so there can be no misunderstanding: (a) all moneys paid by the State are subject to prior appropriation by the legislature; (b) the legislature is not obligated to appropriate the moneys, and the state is not obligated to pay them; (c) but should a future legislation elect to appropriate such moneys, it may legally do so, 'in the opinion of bond counsel.' The divorce of the State's legal responsibility is completed by statements, again in bold type, that the State shall not be liable on the bonds and that the bonds shall not be debt of the State." (*Moody's Bond Survey*, Sept. 17, 1973, p. 568.)

this type of financing; however, as table 4 depicts, 15 other States and Puerto Rico have followed suit in using the device. As table 4 also illustrates, most moral obligations have been sold by State-created instrumentalities to finance housing construction or to support the residential mortgage market. Funds for the payment of interest and principal are derived from mortgage payments, lease rentals, and governmental subsidies of one form or another (often, Federal housing subsidies). Other uses have been found for the moral obligation, including the repackaging of local government bond issues in bond banks (Vermont, Maine, and Puerto Rico have been active thus far).

While the use of the moral obligation has flourished, it has presented special analytical problems for the bond analyst and the rating agencies. There are analytically three forms of risk to evaluate:

(1) The risk that the project itself will not be self-sustaining; (2) the risk that the State will not "back up" the "moral obligation"; and (3) the risk that the State, if it does honor its contingent liability, will jeopardize the credit standing of its own obligation.[5]

TABLE 4.—*Moral obligation bonds, outstanding as of February 1975*

State:	*Millions of dollars*
Connecticut	$180
Illinois	196
Kentucky	52
Maine	111
Massachusetts	119
Michigan	277
Minnesota	84
New Jersey	472
New York	6,336
North Carolina	17
Rhode Island	4
South Dakota	27
Tennessee	33
Vermont	90
Virginia	113
Wisconsin	38
Puerto Rico	55
Total	8,204

Source: *Moody's Bond Survey* (Apr. 7, 1975), p. 1429.

Moody's rating agency (expressing uncertainty about the strength of the commitment and looking first to the self-sufficiency of the projects themselves) has evidently discounted the moral obligation as a binding pledge.[6] As a rule of thumb, rating agencies have tended to rate the bonds a notch below the rating assigned the morally obligated unit.

The question of the security of the moral obligation catapulted into the headlines with the temporary default of the Urban Development Corporation on $100 million in short-term notes in March 1975. Although the State of New York ultimately stood behind the note issue, it initially maintained that the short-term borrowings of the corporation were not covered by the moral obligation that backed the bonds,

[5] Ronald Forbes et al., "Evaluating Credit Assistance Programs" in *Planning for Research on Improving Municipal Credit Information and Credit Quality*, Municipal Finance Officers Association (1974), Appendix, p. 17.
[6] *Moody's Bond Survey* (Sept. 17, 1973), pp. 568–69.

a legal point that did not reassure investors in the sincerity of the State's pledge to back up the agency's financing.[7] Soon thereafter, the general loss of confidence in New York securities and the moral obligations in particular displayed itself in an inability of New York City and various State agencies to refinance billions of dollars in short-term loans, either by rollovers of the notes or their funding into long debt. This has led several of the New York agencies to the brink of default and has raised questions about both the willingness and ability of the State of New York to stand behind either the notes or debt service on the outstanding bonds.[8]

Bond anticipation notes sold by agencies backed by moral obligations have suffered especially from the lack of investor confidence. The Commonwealth of Massachusetts, in order to avoid default by that State's morally obligated Massachusetts Housing Agency, was forced to convert the agency's maturing notes into general obligations of the Commonwealth.[9]

The immediate future for moral obligation financing is bleak. The difficulties experienced by the various New York State agencies has put a crimp in confidence that will be hard to straighten out. One consequence of the problem is that the high cost of borrowing will probably forestall many activities of the State housing agencies unless and until they can devise more acceptable methods of borrowing.[10] Furthermore, interrupted financing will lead to slippages in partially completed projects. This will reduce these projects' ability to pay for themselves and perhaps make it necessary to invoke the moral obligation of the sponsoring State government in some cases.

Housing and Mortgage Finance Borrowing

A rapidly growing use of the tax-exempt security has been to finance housing construction either directly or by purchases of mortgages originated by private lenders. Such programs are now in effect in 32 States, and reportedly have financed more than 270,000 new housing units since 1968, with a total of nearly $6.3 billion in debt outstanding as of mid-1974.[11]

The structure of such programs varies greatly though, as has been discussed, the use of moral obligation securities has been heavy. Four types of programs have been used by the State housing agencies: (1) The direct development approach, where the agency actually engages in the construction and ultimate operation or sale of multifamily housing projects; (2) mortage loans, where the agency makes direct loans to purchasers of housing; (3) mortgage purchases, where mortgages may be purchased from portfolio or originators of new mortgages; and (4) the newest approach, loans-to-lenders, where loans are made directly to private lenders who are required to make new loans and to collateralize their loans from the State agency.[12]

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[7] Alan Bautzer, "New York Agency's Insolvency Shakes Markets," *Money Manager* (Mar. 3, 1975), p. 1.

[8] Reacting to the financial difficulties and dismal prospects for the army of New York State financial authorities, Governor Carey of New York created a special study group, the Moreland Commission, to investigate the downfall of the Urban Development Corporation and to recommend measures to avert future disasters.

[9] "Municipal Market," *The Daily Bond Buyer* (Oct. 14, 1975), p. 6.

[10] "State Housing Finance Agencies," *Housing and Development Reporter* (Nov. 17, 1975), p. 49.

[11] *Ibid.*, p. 43.

[12] *Moody's Bond Survey* (Jan. 6, 1975), p. 1795.

From the outset, State housing agencies have depended upon the availability of housing subsidies from the Federal Government. The availability under the 1968 Urban Development Act of sections 235 and 236 money, part of it allocated directly to the State agency, led to the initial formation of many State housing agencies in the late 1960's and early 1970's. With the impoundment of housing assistance programs early in 1973, the Agencies switched to use of section 23 leased housing programs. Collaterally, they developed indirect assistance programs to support the mortgage market. Typically, these permitted original lenders to liquidate their existing holdings by selling them to State mortgage finance agencies which, in turn, sold tax-exempt bonds in the capital markets. The fact that many of the mortgages were guaranteed by FHA or VA enhanced the security of the borrowings. Although, technically, many housing agency activities fall in the category of industrial development bonds, they were spared for the tax-exempt market by virtue of the exclusions written into section 103 in the 1969 Tax Reform Act.

They have also been given special dispensation under the arbitrage bond regulations to allow them a higher markup between their borrowing and lending rates.[13]

The Housing and Community Development Act of 1974 provided a role for the agencies by replacing section 23 with section 8, which is basically a leasing program that shifts financial risk to the developer and owner. HUD has encouraged the activities of the State agencies by making bulk set asides of section 8 subsidies. Devising a workable financing scheme has presented problems for the agencies, but these problems have not deterred them fom continuing support of the housing market.

Faced with dire conditions in both the housing and bond markets in 1974, the agencies borrowed long term about $1.5 billion and sold $2.2 billion in notes. Thus, State borrowing to support housing has represented about 6 percent of recent State and local bond sales and 8 percent of short-term borrowing. As of the end of 1974, total long- and short-term housing debt came to $4.7 billion and $2.4 billion respectively. In view of the high level of outstanding short-term debt and the continued demand for low and moderate-income housing support, it was widely anticipated that housing agencies would be heavy borrowers in the market in 1975. However, the combination of high interest rates, the concern over the frequently-used moral obligation security form, and the difficulties in developing section 8 arrangements acceptable to the market have held down such financing in 1975. Bonds sold have tended to carry considerably higher rates of interest than similarly rated general obligation bonds, and during the chaotic months of fall 1975 several issues were canceled or reduced in size.[14]

Although the housing construction industry is demonstrably a hard-hit sector and public involvement in housing support is a longstanding tradition, the use of tax-exempt bonds for such purposes has been criticized. First, it is obvious that the heavy volume of borrowing has brought increased pressures to the bond and note market. Bonds sold

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[13] *Housing and Development Reporter* (Nov. 17, 1975), p. 50.

[14] William J. White in *Debt Financing Problems of State and Local Government*, Hearings before the Subcommittee on Economic Stabilization, House Committtee on Banking, Currency and Housing, Part 2 (Oct. 27, 1975), pp. 1364–1368.

for housing tend to have long-term maturities—as do other large revenue bond issues—and, therefore, along with pollution control borrowing have an especially heavy impact on the relatively shallow long end of the tax-exempt market. Second, it may be argued that the bonds constitute a misuse of public funds, especially when proceeds are channeled directly to private mortgage activities and to the refinancing of conventional mortgages or—as sometimes has been the case—commercial mortgages. Certainly, in cases where the agency merely acts as a conduit to private, profitmaking lenders, bonds maintain their Federal tax exemption only by virtue of the exception granted housing section 103(c).

On efficiency grounds, the use of tax-exempt housing bonds can be attacked because as long as some savings are possible by borrowing in the tax-exempt market, benefitted parties will continue to push bond issuances to the point where tax-exempt rates become very close to those on taxable mortgages. (With yields on some new issue tax-exempt housing bonds approaching 10 percent in fall 1975, this argument is not without foundation.) Accordingly, the impact on other tax-exempt yields lessens the value of the exemption for all State and local government borrowers.

Hospital and Health Care Facility Financing

The construction of hospitals and health-care facilities is another rapidly growing and controversial area of tax-exempt financing. Although the owning and operating of hospitals has long been an acknowledged public purpose, the use of revenue bonds to finance construction or acquisition for not-for-profit entities is a development of the 1970's. In 1974, $1.3 billion in hospital and health care facility bonds were sold, and it appears there was an even greater volume of sales in 1975—perhaps $2 billion.

The typical arrangement is that the bond-issuing entity, a special authority or unit of local government, enters into a lease agreement under which the hospital makes payments toward debt service of the bonds. Such agreements are usually secured as a first claim on gross revenues, which frequently consist of medicare and medicaid payments that, in turn, give the bonds the aura of a partial Federal guarantee.[15]

Because of their newness and the novelty of both the purpose and form of security, hospital bonds have been accepted by investors only if they carry relatively high rates of interest. In addition, they present analysts with new problems in assessing credit quality. A special concern in new construction is whether future net income will be sufficient to cover future debt service payments. These estimates and levels of payment depend on the feasibility studies of consultants hired to make projections. Since hospitals compete with one another and other health care facilities, it is also important that plans for future hospital construction in the patient customer area be known.

As in the case of housing, hospital financing by tax-exempts is attractive so long as there is some savings over a taxable bond or mortgage rate. This means rates on these bonds can be much higher than those normally paid on tax-free bonds and still make projects feasible.

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[15] *Moody's Bond Survey* (Jan. 6, 1975), p. 1797.

Reportedly, tax-free hospital bonds with interest costs up to 9½ percent can still be the lowest-cost financing vehicle for construction.[16]

The tax-exempt hospital bond market was shaken by the notorious Covington Hospital case involving fraud on the part of the underwriter and financial adviser.[17] Subsequently, there has been greater circumspection and selectivity in the market for these bonds and wide interest cost differentials between higher and lower credit quality bonds. Hospital bonds appear to be supported primarily by individuals and bond funds, with sparce institutional sales.[17a]

Tax Increment Bonds

A relatively new and controversial use of tax-exemption is the tax increment or, as it is sometimes called, the tax-allocation bond. These bonds are a peculiar breed of the limited obligation security where bonds are secured on a projected increase in property tax revenues that will be generated from the improvement the bonds finance. The key attraction is that the burden of debt does not fall upon the existing property or reduce the tax base of the existing property tax, but rather falls upon future increases or increments in the taxable value of the improved area. The bonds, when secured solely upon such incremental increases in value, must be viewed as fairly risky, since there is no guarantee that the development or renewal effort will be successful and the tax base will rise to pay off the debt service.[18]

Cities in California have been the most aggressive users of tax increment bonds, evidently having issued over $230 million by mid–1974. Reportedly, 13 other States have authority to issue such bonds and several others are contemplating their use.[19]

Tax allocation bonds, which may be issued by a local redevelopment authority or municipal government, are usually sold as part of overall development plan that includes commitments by private developers to the project. Often, they are also backed by long-term lease agreements with public bodies for purposes of building public facilities. Most tax allocation projects involve the redevelopment of urban blight areas as well as new industrial or commercial facilities. As revenue bonds, they do not count against the general government's indebtedness nor do they require voter approval.

The device has been defended on the grounds that it permits financing redevelopment without incurring general debt, burdening existing property owners, or cutting into the tax base. Further, it is argued that the projects must be inherently productive—hence, an added tax source—in order to be salable in the bond market.[20]

On the other hand, the device earmarks future taxes in the project area for debt repayment, thereby freezing the tax base, even though the development that is financed may engender higher levels of public spending. Abuses have been reported where the developing agency

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[16] "Hospital's Use of Tax Exempt Financing Tops $1.4 Billion," *The Daily Bond Buyer* (Oct. 15, 1975), p. 15.
[17] *Ibid.*, p. 15.
[17a] *Ibid.*, p. 15.
[18] Gerald M. Trimble, "Tax Increment Finance for Redevelopment," *Journal of Housing* (November 1974). G. H. Jefferson and Tee Taggard, "Tax Increments Criticized" *Journal of Housing* (January 1975).
[19] National Council for Urban Economic Development, *Tax Increment Financing* (September 1975).
[20] *Ibid.*, p.6.

has designated as the increment zone large areas that do not really benefit by the project in order to capture the growth in future taxable values. In addition, tax increment financing is a risky and expensive use of tax exemption and one that can benefit a select group of private parties. When incremental revenues fall short, a community, while legally free of responsibility, is still faced with the ethical question of whether it should bail out the bonds or face the opprobrium of default.

Advanced Refunding Bonds

Another much-criticized use of tax exemption has been the advanced refunding bond. These bonds are sold prior to the redemption date of the issue which they replace. The proceeds from the sale of the advanced refunding issue are used to retire the outstanding bond when it becomes callable. Since the old issue and issues to refund it are outstanding at the same time, the total supply of tax-exempt bonds can be inflated by a multiple of the amount actually needed to finance the improvement. In fact, prior to the enactment of certain constraints on the use of advanced refunding bonds, advanced refunding issues were pyramided in order to earn a profit from the investment of tax-exempt bond proceeds in higher yielding taxable securities.

Advanced refunding becomes increasingly attractive when interest rates drop and as a result, most activity occurs when yields are at cyclical lows. The exact volume of refunding bond sales is not known, but one estimate is that approximately $2.7 billion were sold between 1971 and 1974, with the bulk of sales occurring during the recoveries of 1971 and 1972.[21]

There are three basic reasons for advanced refundings:[22]

(1) Long term savings of interest cost, either because the general level of interest rates has dropped or the borrower has improved his relative credit position;

(2) Prevention of default because current debt service is reduced by selling a refunding bond that stretches out the debt; and

(3) Modification of restrictive convenants on original issues which have inhibited present development or have become undesirable for other reasons.

These purposes have traditionally been achieved by straight refunding, that is, selling a new issue to replace an outstanding one near the maturity or at a call date of the original bond issue. Advanced refunding is different because the funds to be used to retire the original debt are sold in advance of the maturity date. Thus, where advanced refunding occurs, there are two bonds outstanding. The proceeds of the advanced refunding bond issue are set aside in an escrow account, and the cash flow from the investment in escrow is used to support the debt service on designated portions of either the original or refunding bond issues.

Most advanced refundings employ what it termed the standard defeasance method. With this technique, the issuer sets aside the full amount of the outstanding bonds in a pledged escrow account. Under most State laws this serves to "defease" the claim of the existing bond-

[21] Salomon Brothers, *Supply and Demand for Credit in 1975* (1975), p. 16.

[22] C. W. Ritter, *Advanced Refunding Techniques of Municipal Debt Reorganization* (June 1975), pp. 1–3. See also Thomas F. Mitchell, "Advanced Refunding of Municipal Bonds: Concepts and Issues," University of Oregon (July 1975).

holders on revenues and frees the issuer to modifiy the original covenant restrictions.[23]

The effect of advanced refunding is to erase the original debt from the issuer and owners of the original bond issue are given an alternative and usually superior backing for their holdings. Another important aspect is that when secured by a deposit of Federal securities or their equivalent, the original issue becomes eligible for unlimited holding by banks.

Traditionally, there have been two policy objections to advanced refunding. First, the device has been used for the sole purpose of earning an arbitrage profit for the borrower. By investing refunding bond proceeds at yields in excess of borrowing costs, issuers could earn a profit without risk. This use has been almost eliminated by Treasury regulation and the arbitrage provisions of the 1969 Tax Reform Act.[24] Second, advanced refunding increases the supply of tax-exempt securities without financing genuine public improvements. The added tax-exempts keeps tax-exempt yields from being as low as they otherwise might. The potential of advanced refunding issues acts as an overhang on the market, since these issues frequently are sold when interest rates drop and refunding savings are most attractive. This keeps the tax-exempt market from recovering as quickly or completely as it might and diminishes the reward to issuers who have stayed out of the market during periods of high interest rates and congestion.

A third and more recent objection to advanced refunding derives from the impact of current arbitrage regulations on potential profits when borrowers can borrow at rates lower than they must pay. This arises because the issuer is required by Federal arbitrage rules to invest 85 percent of refunding bond proceeds at a yield that is not substantially higher than that on the refunding issue. As a result, those supplying securities for the escrow account have a chance to price those securities artifically at a price higher than they paid for them or to bid an artificially favorable price for the refunding bonds, knowing that they will make up the underwriting loss with compensation from third-party profit. The existence of the third-party profit, which issuers cannot themselves reap, creates an inducement for underwriters to promote the issuance of advanced refundings, even when they represent little or no gain to the issuer.[25]

The Treasury has been aware of the unhealthy pressures that can develop from the existence of the third-party profit. In 1973 it proposed changes in the arbitrage laws that essentially would require investment of escrow funds in special government issues.[26]

The Pollution Control Bond

The use of tax-exempt bonds to finance pollution control expenditures for private corporations has increased greatly over the past 4 years, posing both philosophical and practical problems in the munici-

[23] The obligation acquired usually is either direct or guaranteed obligation of the Federal government. This transforms the outstanding bond issue to "AAA" status. Ritter, *op. cit.*

[24] *Ibid.*, p. 17. See also Daniel L. Goldberg, "The New Proposed Arbitrage Bond Regulations—And a Comparison With the Old," *Urban Lawyer*, vol. 6 (1974), pp. 76–77.

[25] Unless the present value of all costs and future savings are calculated, issuers may actually realize losses on future interest cost "savings" even though they may appear to profit in the nominal amount of interest paid.

[26] U.S. Treasury, *Proposals for Tax Change* (Apr. 30, 1975), p. 148.

pal bond market. Annual reported sales of these obligations—which typically are for large amounts and issued for a long term—have now reached a level of $2½ billion.

The pollution control bond is the product of two converging trends: (1) The growth and transfiguration of the industrial development bond; and (2) public concern as expressed in legislation to abate or eradicate pollution.

The use of public tax-exempt credit to finance private firms has its modern origins in the industrial revenue bond. Beginning in the 1930's in the South, industrial revenue bonds were issued by State and local governments to finance the plant and equipment expenditures of new or expanding firms and, thereby, to bolster their own economies. In the early years, industrial development bonds were limited mainly to small borrowers in the South and received little attention. Through the 1960's, their use rose dramatically, culminating in $1.6 billion in new issues by 1968—or 10 percent of all long-term tax-exempt bond sales. Finally, the Department of the Treasury and then the Congress took steps to halt what became acknowledged as an abuse of tax exemption and a threat to the conventional municipal bond market.[27] As a result, industrial development bonds were excluded from tax exemption by addition of section 103(c)(1) to the Internal Revenue Code. However, section 103(c)(4) of the code allowed an exception to the exclusion. That section exempted certain facilities financed by industrial revenue bonds on behalf of private firms from the size-of-issue restrictions, namely, residential property; sports facilities; convention facilities; transportation facilities; sewerage, water, solid waste, and energy facilities; industrial parks and—most notably—air and water pollution control facilities. The basic law ultimately spawned the usual extensive regulations from Treasury. But, for the time being, industrial development bonds were quiescent. Sales fell from a peak of $1.6 billion in 1968 to only $50 million a year later.

However, a second trend was at hand, one which would make the pollution control exception of particular interest. This was, of course, the flood of Federal legislation aimed at cleaning up the environment. In 1969 the National Environmental Protection Act was passed. Soon after, Congress created the Environmental Protection Agency (EPA) whose function was to establish and enforce standards of environmental protection.

Two Federal acts provided substance and economic impact to the EPA's mission: the Clean Air Act of 1970 and the Water Pollution Control Act of 1972. The Clean Air and Water Acts together required that certain standards be promulgated and enforced—primarily by the States—to prevent or abate pollution by toxic and hazardous substances in air and water. The economic effect was to require large scale investments by industry.

The cost of the mandated national clean-up for industry (pollution related to site or stationary point emissions) has been estimated at $5–15 billion a year. Such investments are likely to reach a peak by the late 1970's and to decline gradually through the 1980's. Recent reports show expenditures to be roughly on target for the first few years.

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[27] Public Law 90–364, Sec. 107, 90th Cong. (June 28, 1968), as amended (Oct. 24, 1968).

In 1974, industry spent an estimated $5.6 billion on new plant and equipment for pollution abatement.[28]

To be tax exempt, pollution control financing must be done through a State or local government entity empowered to enter into agreements and sell debt. Typically, special authority for this purpose is created by legislation or constitutional amendment and exists in perpetuity or for the life of a particular project. The borrowing undertaken for this special and limited purpose constitutes a revenue obligation and is not a general debt of the governing body that authorized it.

In their relatively brief existence, pollution control bonds have assumed various financing arrangements. They share certain features, however, that allow these bonds to qualify for tax exemption. While pollution control bonds meet the statutory definitions for industrial development bonds, they enjoy tax exemption through the exception granted by section 103(c)(4) of the code and a complex set of governing regulations.[29]

Besides helping to clean up the environment, the tax-exempt pollution bond—much as its predecessor and companion, the industrial development bond—has several advantages for the assisted company. First is the savings in interest cost on borrowed capital (or the lower lease payments). Pollution control bonds have sold at yields ranging between 70 and 80 percent of those on comparable corporate, taxable securities. In recent markets, this has meant savings of 1.5 to 2.0 percentage points or about $4 million in total interest expense on a 20-year, $10 million issue. In addition to interest cost savings, certain Securities and Exchange Commission registration fees and related legal expenses are avoided because the bonds are not registered.

Acquired facilities may also receive advantageous tax treatment. Generally, under the lease (or installment purchase) arrangement, the leasing firm can treat the property as being owned and can depreciate it. In addition, relief from State and local taxes may be offered. A final advantage is that 100 percent financing is available for facilities that do not increase productivity and profitability of the plant.

The growth in reported pollution bond sales since their inception in 1971 has been spectacular, rising from the $93 million reported by the Bond Buyer in 1971 to an estimated $2.5 billion in 1975. In the last 2 years, pollution control bonds have represented about 7–8 percent of all long-term municipal bond sales. Together with "conventional" industrial revenue bonds, many of which are sold in conjunction with pollution control bonds, pollution bonds for private firms represent approximately 10 percent of all reported tax-exempt bond sales.

Widespread nonreporting of transactions makes it hard to compile accurate figures on pollution control and development bond sales. Perhaps the greatest unknown is the extent to which commercial banks

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[28] John Cremeans et al., "Capital Expenditures by Business for Air, Water and Solid Waste Pollution Abatement," *Survey of Current Business* (July 1975), pp. 15–19.

[29] Treasury Regulations, sec. 1.103–9. Generally, the regulations place heavy emphasis on the relationship of the pollution abatement improvement to the overall industrial process and its design. The stickiest point comes in showing, as is required by the regulations, that two significant purposes are met: (1) The improvement would not have been made except to control pollution and (2) it is not designed to meet any significant purpose other than pollution control. Unless both tests are met, only that part of the expenditure attributable to pollution control—and not materially increasing productive capacity or useful life of the production facility—can be used for the pollution control exception and tax-exempt financing.

finance such facilities through tax-exempt loans. Combining unreported bank lending and the estimates for unreported direct placements (on the basis of the earlier development bond experience), it is conservatively estimated that pollution control financing and industrial development bond financings were under-reported by at least $1 billion in each of the last 2 years.[30]

Forecasters agree that pollution control outlays will climb in the years ahead under existing laws. Recent surveys initiated by the Bureau of Economic Analysis show that non-farm business spent $5.6 billion on pollution abatement facilities in 1974 and planned to spend $6.3 billion in 1975.[31] These figures agree with both McGraw-Hill and EPA estimates. However, in subsequent years the projections diverge greatly (EPA envisages as much as $15 billion annually by the late 1970's whereas McGraw-Hill predicts a leveling off to $7 billion annually).[32] Assuming that there is no substantial change in the pollution control laws and allowing for inflation, a reasonable forecast for pollution control expenditures is $10 to $12 billion by the late 1970's. Given the present patterns of financing, it is probable that pollution control borrowings should reach a level of $4 to $6 billion through the late 1970's under existing laws.[33]

Pollution control bonds present major issues for the capital markets. From the standpoint of the industrial borrower, the greater the cost saving it can realize by borrowing on a tax-exempt as opposed to a taxable basis, the greater the inducement to use the pollution control bond. But, from the standpoint of the State and local borrower and the public at large, the greater the sales of pollution bonds in the tax-exempt market, the greater the supply of tax-exempt bonds will grow in relation to the demand for them, forcing interest rates to rise. This not only adds to the cost of all municipal borrowing, it also reduces the efficiency of tax-exemption as a subsidy.

Recent studies of the relative market performance verify that net interest cost savings on pollution control issues have dropped as volume has grown.[34] This means that tax exemption is increasingly less efficient in lowering the interest cost of pollution control bonds. Thus, in order to sell all the bonds desired, issuers must pass more of the benefits of tax exemption to investors and keep less for the firm and improvement which is being financed. In addition, increased supply raises interest costs for all municipal borrowers, who must compete for limited funds seeking tax shelter.

On the basis of several econometric studies, the interest rate impact of additional tax-exempt debt—given the level of funds available for

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[30] John Peterson, "The Tax Exemption Pollution Control Bond," Municipal Finance Officers Association, *Analysis* (March 1975), pp. 4–5.

[31] John Cremeans et al., *op. cit.*, p. 15.

[32] George Peterson and Harvey Galper, "Tax-Exempt Financing of Private Industry's Pollution Control Investment," Public Policy (Winter, 1975).

[33] Evidently, the share of pollution control outlays financed by tax-exempt bonds is approximately 40 percent and approaching 50 percent. Another factor in the growth of pollution control bonds has been adoption of enabling legislation by states. As of the end of 1974, all but two—Washington and North Carolina—had some legislative authority to accommodate this type of financing. But, of much greater consequence are the Federal laws and complex regulations that permit use of the pollution bond. For example, it was administrative foot-dragging and Treasury opposition to certain techniques that kept pollution bonds from being used until 1971. See Petersen, "Pollution Control Bond," pp. 5–6.

[34] *Ibid.*, pp. 6–7.

the tax-exempt market—probably ranges between 5 and 20 basis points per billion of added borrowing.[35]

Pollution control bonds also have been examined in terms of their overall costs and benefits as a tax subsidy. The subsidy offsets part of the expense incurred by private industry to reduce or eliminate industrial pollution. However, the subsidy's costs are borne by the public in three ways: Federal taxes on interest income are foregone when tax-exempt bonds are used instead of taxable securities; State and local taxes are foregone because of the exemption of such bonds from many State income, personal property, and real property taxes; and borrowing costs are higher for other tax-exempt bond issuers because the increased supply of bonds pushes up interest rates. Benefits are distributed between the principal target—the firm making the improvement—and an unintended beneficiary, the purchaser of tax-exempt bonds, who receives greater tax shelter for otherwise taxable income.

A recent study of pollution control impacts in 1973 estimated that the $2.1 billion sales in pollution control and industrial revenue bonds resulted in combined first-year costs for Federal, State, and local governments of $66 million.[36]

Looking at the benefit side, firms using pollution bonds saved $40 million in reduced borrowing costs for the first year. The other $26 million of the subsidy flowed to investors as additional tax shelter income. Hence, industrial firms were able to enjoy only two-thirds of the Government subsidy; the rest was passed on to purchasers of pollution and industrial revenue bonds.[37]

While the 1973 figures are impressive, they are a dead letter. The bonds have been sold, and the subsidies are largely sunk costs to be incurred over the next 25 to 30 years. The real issue is future growth. With the long life of the pollution bond and its ability to drive up rates in tight money periods, it is the cumulative impact on the remainder of the tax-exempt bond market that should be examined.

Projecting to 1980, it has been estimated that the total annual tax loss on $25 billion in outstanding pollution control (and industrial revenue) bonds that will have been issued during the decade of the 1970's would be $640 million. In addition, State and local governments by then would be paying an additional $150 million each year in debt service costs. Corporations would enjoy a total of $425 million in interest savings, while investors would be receiving about $365 million in added tax-sheltered income. In that case, firms would be realizing only 54 percent of the benefits of tax-exemption.[38]

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[35] *Ibid.*, p. 9; footnote 26, pp. 12–13. In a recent study, Peter Fortune estimated that in 1974, pollution control bonds had increased long term tax exempt rates by 30 basis points. See his "The Financial Impact of the Federal Water Pollution Control Act: The Case for Municipal Bond Reform," Harvard Institute for Economic Research (October 1975), p. 12. See also Peter Fortune, "Impact of Taxable Municipal Bonds: Policy Simulations with a Large Econometric Model," Federal Reserve Bank of Boston (1974) and Harvey Galper and John Petersen, "An Analysis of Subsidy Plans to Support State and Local Borrowers," *National Tax Journal* (June 1971).

[36] The governmental cost included foregone Federal tax receipts ($50 million), state and local taxes ($3.5 million) and increased state and local borrowing costs ($12.5 million). Since these bonds probably had an average life of 25 years, this means a total of $1.35 billion in foregone taxes over their lifetime and $150 million in higher borrowing costs over the typically shorter lifetime of the other tax-exempts sold that year. See Petersen, "Pollution Control Bond," pp. 8–9.

[37] *Ibid.*, p. 9.

[38] *Ibid.*, p. 9. These estimates, compared to what impacts could be, are conservative. For example, were the stock of outstanding pollution bonds to be $40 billion by the end of 1980 (up from $4.5 billion at year-end 1974), interest cost impacts and foregone tax revenues could push annual total costs of the subsidy to nearly $1½ billion by 1980. See Galper and Petersen, *op. cit.*, p. 101.

The unfavorable impacts on the State and local bond market and the overall poor marks given pollution bonds on efficiency and equity grounds are not the only criticisms of these instruments. Two other complaints are the pollution bond's relative lack of availability to small borrowers (and, conversely, its overuse by large firms that could finance control facilities by other means) and its potential for undermining the concept of tax-exemption.

The swelling body of evidence against the pollution control bond, coupled with the recent lackluster performance of the tax-exempt market, has led several industry and public interest groups to oppose continued use of the device. The Municipal Finance Officers Association adopted a resolution of opposition in April 1975.[39] This was followed by similar statements from the American Public Power Association, the National Association of County Officials, the National League of Cities, and, most recently, the Securities Industry Association.[40] Meanwhile, the Treasury continues to express opposition, both through formal statements and informally by increasingly tightfisted interpretation and enforcement of controlling regulations.

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[39] Statement of John Petersen in *Federal Response to Financial Emergencies of Cities*, Hearings before committee on Government Operations, U.S. House of Representatives (June 25, 1975), p. 144.

[40] Statement of the Public Finance Division of the Securities Industry Association before the Committee on Ways and Means, U.S. House of Representatives (Jan. 21, 1976), p. 7.

Chapter III. A CHANGING FISCAL ENVIRONMENT

The emergence of the New York City crisis and related credit crises in New York State brought from the cellar of neglect the question of municipal bond credit quality. Since the Great Depression, few analysts have devoted much time or effort to the financial health of State and local governments or their ability to support debt. The sector had shown stable growth through the post-World War II period, and there had been a noticeable lack of systematic default. There was little doubt that the debt of local governments was "money good" and that governmental borrowers had sufficient fiscal stamina and integrity to meet contractual debt service payments. What concerns there were (and payments difficulties) were restricted largely to more speculative, revenue bond-financed enterprises that depended not on taxes but on user charges from a commercial activity or were backed by leases from private firms with shaky prospects.

By the end of 1974, bond market concerns over credit quality began to surface. There were many contributing factors. Undoubtedly, New York City's difficulties in its November and December 1974 borrowings cast lengthening shadows not only over its prospects in the tax-exempt market, but also over those of many other State and local borrowers. New York's ordeal, while pivotal to the municipal bond market's recent performance, has been the focus of most attention and has been recounted in great detail elsewhere.[1] Here it is useful to examine the impact of the crisis on the market at large and its consequences for other State and local governmental borrowers—and, most particularly, for those that have become tainted by the market's perception of them as sharing common problems with the city.

The Large City Borrowers

The enormous bow-wave of investor concern created by New York has had its initial and strongest impact on other large, old big-city borrowers located in the East and Midwest. For years, an assortment of social scientists and politicians have pointed to the decline of these central cities and the implications for the Nation as a whole. Although these borrowers were by no means the most favorable received, such cities as New York, Philadelphia, Boston, Cleveland, Baltimore, and Detroit had retained reasonably good access to the credit market. In fact, as sustained national prosperity rolled into the early 1970's, accompanied by fresh Federal cash infusions from general revenue sharing, many of the governments either improved or at least maintained their credit ratings despite the gradual softening of their local economies. By early 1975, the municipal bond market was beginning

[1] For excellent summaries, see Congressional Budget Office, *New York City's Fiscal Problem: Its Origin, Potential Repercussions and Some Alternative Policy Responses* (October 1975) and Joint Economic Committee of Congress, *The New York Fiscal Crisis* (November 1975).

to take a harder look at the bigger cities. Often, the market did not like what it saw.

Opinion on the uniqueness of the New York City situation is divided, but most would agree that many fundamental problems relating to demographic-economic-fiscal relationships are shared by other major urban centers. From the standpoint of city borrowing in the capital markets, however, the ramifications of these problems and their relevance to particular situations are usually obscure and often ephemeral. Certainly, much of the investor's opinion will hinge on the existence of problems or uncertainties, and how local politicians and administrators will conquer, cope with or, perhaps, attempt to conceal them.

The debt-paying ability of cities can be changed by many factors: the basic strength of the income stream and stock of wealth that can be tapped by the local revenue system; the efficiency and resiliency of the revenue-raising devices; the cost and controllability of expenditures in the budget; the overall political and administrative climate in a city that fosters fiscal prudence or permits profligacy; and, in the final measure, the legal and political power to force the debtor to pay in full and on time, even if this happens on his fiscal deathbed. Looking first at the basic economic prospects of the major cities, it is clear that many have declined in vitality over the past decade or so. Not only has population dropped in several major eastern and midwestern cities, it has changed in nature, becoming progressively older and relatively less affluent.[2] While the percentage of population below the poverty line decreased nationally between 1960 and 1970 from 18 percent to 11 percent, the improvement was smaller in major urban areas. Of the 24 largest cities, all but 7 had higher than the national average of population below the poverty line; only 1 did not show a relative increase in the proportion of the Nation's poor living within its boundaries.[3]

Private sector employment—the generator of the income and wealth that sustains the local tax base—has undergone a secular decline in many central cities as industry and jobs fled to suburbia or exurbia.[4] Between 1960 and 1970 about half the 24 largest cities saw a loss or no significant increase in the number of jobs. Since 1970 the job flight has been exacerbated by recession. Between June 1974 and January 1975, the national unemployment rate increased from 5.2 percent to 8.6 percent. By June 1974, fully 21 of the 24 largest cities had unemployment rates higher than the national average (9 with 10 percent unemployed or more), and 15 had seen their rates—already at relatively high levels in June 1974—increase by more than the national average.[5]

A second set of concerns grew out of the rapidly rising costs of governmental services which, when linked with declining economic bases and absorption of high-need population groups, put the screws

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[2] Joint Economic Committee, *New York Financial Crisis*, pp. 11–15. Of the 24 largest cities, 11 of 13 in the East and Midwest experienced reduction in population between 1960 and 1973. (One, Indianapolis grew only by virtue of annexation.) Of 11 southern and western cities, 3 showed declines between 1960 and 1973, and an additional 3 declined between 1970 and 1973.

[3] *Ibid.*, pp. 15–17.

[4] Roy Bahl et al., "The Impact of Economic Base Erosion, Inflation, and Employee Compensation Costs on Local Governments," paper 23, Maxwell School, Syracuse University (September 1975), p. 2.

[5] *New York Financial Crisis*, pp. 19–21, *Survey of Current Business* (October 1975).

even tighter to the governmental fiscs. State and local governmental employment has grown rapidly in the past quarter-century—moving from 7.6 percent of total employment to 13 percent by 1973—and average wages have risen faster than in the private sector.[6] The myriad of supplemental benefits in addition to wages grew even faster than did wages themselves until they came to represent 11.5 percent of wages and salaries. While cities shared in this growth in employment and employee compensation through the early 1970's, many began to slow down or cut back on public employment by 1973 and 1974; but, not until a wave of increased wages and benefits had passed over them.[7]

A special concern among rising employee costs centers on the cost implications of public employee pensions. Either because of inattentiveness to changing times or in a deliberate effort to hold down taxes, many local governments in effect were transferring part of the rising costs to future generations by insufficiently funding the pension liabilities that public employees were accruing. Even in those cases where funding was taking place, it was evident that pension costs were a large and largely uncontrollable item in city expenditures.[8]

The problem of employee costs was reinforced by the unparalleled pressure that the inflationary surge of the mid-1970's placed on local governments. Recent research indicates that between 1967 and 1972 inflation had a fairly symmetrical impact on governmental expenditures and revenues: While the cost of goods and services went up, they did not on average outpace the inflationary increases in the tax base. Local governments, on the whole, appeared to come out slightly ahead in the early inflationary period.[9] However, the hyperinflation of 1973 and 1974 caused estimated tax bases to grow by only 15 percent while expenditures—holding 1972 levels of real goods and services constand—increased by 25 percent. As a result, State and local purchasing power between 1972 and 1974 declined by about 10 percent or $10 billion, an amount almost equal to the total general revenue sharing entitlements in 1974 and 1975.[10] Clearly, the State and local tax base was incapable of holding real expenditure levels in place, much less supporting higher levels of real public goods and services.

This erosion in financial power, while obvious in some areas, was not immediately evident throughout the State and local sector. During the early 1970's, Federal aid to State and local governments had grown by leaps and bounds. With the initiation of general revenue sharing payments, Federal aid increased by 22 percent in 1972 and 25 percent in 1973, far ahead of the already impressive rate of growth of 13 percent a year between 1955 and 1970.[11] The aggregate figures fail to reflect, however, that much of the aid in the case of large cities was a substitution for other Federal programs that were either impounded, cut back, or shelved, so that the net benefits of the increase to such cities were proportionately much less. Moreover, by 1974, the rate of growth in

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[6] Bahl, "Impact of Economic Base Erosion," p. 6.

[7] Employment in cities of more than 50,000 grew by only 0.8 percent in 1974, and 10 of the largest 20 cities actually reported declines in employment in 1973, 1974, or both years. *Ibid.*, p. 7.

[8] See Bernard Jump, "Financing Public Employee Retirement Programs in New York: Trends since 1965 and Projections to 1980," paper No. 16, Syracuse University (1975).

[9] D. Greytok and B. Jump, *The Effects of Inflation on State and Local Government Finance*, Syracuse University (1975).

[10] Bahl et al., "The Impact of Economic Base Erosion," pp. 23–24.

[11] *Ibid.*, pp. 26–28.

Federal aid slowed temporarily, but drastically, to about 5 percent a year, although by 1975 it appeared that Federal assistance, much of it to provide temporary public employment, was once more on the rise. Meanwhile, the States—many under fiscal pressure themselves—showed little appetite for assuming the more costly functions of the cities. Between 1965 and 1972, States increased their relative share of combined State and local revenues by only 2.2 percent and of expenditures by only 1.3 per cent.[12]

As noted earlier, the financial pressure began to manifest itself in the growing deficits of the State and local general government sector in late 1973 and 1974. While an analysis of these deficits cannot be simple or straightforward, it was obvious that the sector was depending more and more on the capital markets and/or running down investment assets in an effort to finance itself. By the last quarter of 1974 the State and local sector was dissaving at a rate of $16 billion a year, a deficit position maintained through 1975.[13]

The tightening economic situation, against a backdrop of secular decline, evidently brought forth the classic response from most city governments. A survey by the Joint Economic Committee early in 1975 determined that cost cities were tightening their belts by cutting expenditures or raising taxes to cope with the consequences of recession and inflation.[14]

That study found that the burdens of the recession were falling in a highly predictable pattern: those States and cities with the weakest financial conditions—the smallest surpluses and poorest revenue prospects—were taking austerity measures to balance outlays with diminished income. Not surprisingly, governments in energy-exporting and agricultural regions of the country—West and South Central—were relatively best off with substantial surpluses and strong revenues.[15]

Local governments in high unemployment areas, with little or no surplus in their operating budgets, where heading toward deficits unless taxes were raised or expenditures cut back. The magnitude of needed adjustments were five times as great (7 to 8 percent of the budget) for high-unemployment governments than for those with unemployment rates less than the national average.[16] The study estimated that about $600 million to $1 billion in capital spending would also be pruned, in order to reduce borrowing costs and thus free capital funds for operating uses. All told, the JEC research estimated that State and local governments in 1975 would make $7.5 to $8 billion in expenditure cuts or tax increases in an effort to balance their budgets.[17]

While the JEC study emphasized the deflationary nature of these adjustments, the alternative and, from the standpoint of financial markets, the most relevant interpretation was that States and localities were playing by the rules. Unable to control their local economies and without the benefit of unlimited access to credit, very few State and local governments indulged in countercyclical deficit spending; those that have, do so only at their own peril. Investors might buy a specula-

[12] *Ibid.*, p. 28.
[13] See Federal Reserve Board, *Flow of Funds* (various numbers). For the first three quarters of 1975 the sector deficit was $13 billion.
[14] Joint Economic Committee of the Congress, "The Current Fiscal Positions of State and Local Governments" (1975).
[15] *Ibid.*, pp. 28–29.
[16] *Ibid.*, p. 31.
[17] *Ibid.*, p. 38.

tion of brick and concrete or forgive an occasional accidentally unbalanced budget, but they have no confidence in a deliberate operating deficit, and they abhor a string of them.

City Financial Management

Recognizing the rules of sound management for municipal borrowers, the question of the fiscal condition of cities has another dimension. This is how well the government manages its affairs, acknowledges its fiscal limitations, and lives within its means. A study, *City Financial Emergencies*, done by the Advisory Commission on Intergovernmental Relations in 1972, proved to be a thorough and somewhat prescient analysis of what brings on financial crises and how they can be avoided. Its principal conclusion was that in the early 1970's most large cities were "free of conditions that present a treat of financial emergency." [18] This was not to say the economic and public spending pictures were rosey for cities, but rather that budget crises could be averted through good management.[19]

Management basically involved a set of traditional actions to retain a balanced budget: (1) Keep operating receipts in balance with expenditures and avoid deficit financing of current outlays; (2) do not allow unavoidable deficits to extend past 1 year; (3) keep a consistent pattern of operating expenditures; and (4) collect rapidly any delinquent taxes. The Commission also cautioned that pension fund liabilities were worrisome and that "poor budgeting, accounting, and financial reporting may be indicative of impending financial crises." [20]

In a recent reappraisal of conditions, one of the principal authors of the ACIR study, while acknowledging that times are tougher now for cities, pointed to the fact that the majority knew the rules and were applying them. He contended that there was no widespread indication of fiscal trouble in major cities in 1974, save for New York City, and concluded:

> That a major factor has been strong financial management by most major cities. The report of the Advisory Commission on Intergovernmental Relations, *City Financial Emergencies*, pointed out that "sound financial management stands out as a key element to the prevention of financial emergencies in local government." A main component of financial management is balancing cash receipts and expenditures on an annual basis. It appears that as fears about the national economy have become widespread, city financial officials have aggresively moved to balance their receipts and expenditures and to maintain a good cash position. It is significant to note, that when receipts are compared to expenditures . . . the average increase in revenues of 9.3 percent from the prior year exceeded the 7-percent increase in expenditures. Thirteen of the 30 cities reported receipts increasing faster than expenditures in 1973–74.[21]

The studies cited above and widespread press reports of city budget cutbacks document the rapid fiscal retrenchment of most State and local governments. However, the unfolding spectacle of New York City's excesses, the resulting closure of the bond market to it, and the city's public humiliation as a supplicant for Federal help brought

[18] P. 56.
[19] *Ibid.*, p. 4.
[20] *Ibid.*, p. 4, pp. 59–73.
[21] Philip M. Dearborn, Statement before House Committee on Government Operations (July 15, 1975), p. 4.

on a wave of public concern over the financial conduct of State and local governments and, particularly the large cities. A municipal bond market, already sensitive to quality considerations and struggling with a tide of new issues in the face of limited investor demand, became obsessed with the need to search out and discover other "New Yorks." As a result, pronounced size, location, and credit quality premiums began to appear in municipal interest costs, rippling out across the country from the desperate situation of the financial markets in New York State. These are discussed in subsequent chapters of this paper.

Chapter IV. THE IMPACT OF CHANGING MONETARY CONDITIONS

The municipal bond market is influenced by many forces beyond the immediate control of State and local governments. Major determinants of the demand for, supply and cost of borrowed capital are changing monetary conditions as influenced by the monetary and fiscal policies of the Federal Government. Monetary policy, through its impact on the level of interest rates and on the behavior of commercial banks—the prime investors in municipal bonds for the last 15 years—has a significant impact on bond sales and capital outlays by States and localities. Fiscal policy likewise works through a host of specific revenue and tax measures, as well as through the total balance of receipts and expenditures, to influence the overall level and composition of municipal borrowing.

As is depicted in chart II, the last decade and a half has witnessed a jolting rise in the cost of borrowing for all sectors, including the municipal bond market. Because of certain peculiarities in its structure, the market for municipals has been subject to greater variability than markets for taxable debt securities.

The impact of changing monetary conditions on State and local governments has been the subject of much research. Numerous studies have documented the response by State and local governments, beginning in the 1950's, to tight-money conditions, by adjusting their financing and spending plans to varying circumstances in the credit markets.

A survey by the Federal Reserve Board plotted the reaction of the State and local sectors to the tight-money intervals of 1966, 1969 and 1970 and its behavior in subsequent periods of relative ease. In both the 1966 and 1969–70 episodes, State and local governments displayed a high degree of sensitivity to interest rates in their borrowing plans and a lesser, but still significant, impact on their capital outlays.[1]

[1] It has been estimated that States and localities in 1966 postponed $2.3 billion in bond sales and reduced expenditures by $.7 billion because of high interest costs. In the 1969–70 credit crunch, the then record high interest rates derailed $5.2 billion in bond sales and $1.6 billion in spending. See Paul F. McGouldrick and John E. Petersen, "Monetary Restraint and Borrowing and Capital Spending by Large State and Local Governments in 1966" and "Monetary Restraint and Borrowing and Capital Spending by Small Local Governments and State Colleges in 1966," *Federal Reserve Bulletin* (July and December 1968). See also John E. Petersen, "Response of State and Local Governments to Varying Credit Conditions." *Federal Reserve Bulletin* (March 1971) and Harvey Galper and John Petersen, "Strengthening the Municipal Bond Market," pp. 7–8.

CHART II

Corporate and Municipal Aaa Bond Yields
Annual Averages: 1960-1975 Est.

Source: Moody's Investor Service.

Essentially, studies found that while all governmental units reacted to tight credit by postponing long-term financing, the effect on spending plans varied directly with size and available financing alternatives. Small units, in particular, displayed both the greatest tendency to persevere in selling bonds, and if unable to do so, the highest propensity to sack spending plans. But most governments were able to keep their spending plans on track by a combined use of short-term borrowing and running down financial assets. Subsequent to the tight money bouts, State and local borrowers rebounded impressively in late 1971 and 1972, issuing more than $23 billion in long-term debt and making up for repressed borrowing needs.[2]

[2] Paul Schneiderman, "Planned and Actual Long-Term Borrowing by State and Local Governments," *Federal Reserve Bulletin* (December 1971).

Conditions remained relatively relaxed in the tax-exempt market through 1972 and 1973, as the annual volume of long-term borrowing reached a temporary plateau of between $22 and $25 billion. Certain changes were taking place, however. Short-term borrowing continued at high levels as many issuers and investors felt liberated from earlier inhibitions against sustained short-term indebtedness. Also, as has been reviewed in detail, new uses of tax exemption generated a growing supply of revenue securities, many of very long maturity. On the investor side, the large banks began to cut back on their holdings of municipal bonds. Their lessening interest went largely unnoticed, however, as smaller or country banks stepped up their purchases and fire and casualty companies gave strong support to the long-term revenue bond market.

Another important development in the financial picture of State and local governments was the reversal of strong growth in capital outlays in the 1960's. The growth in fixed capital formation by the sector dropped from about 10 percent a year in 1965–68 to only 4 percent between 1968 and 1972.[3] Several factors contributed to the decline in capital formation, including the higher level of interest rates, the shifting of priorities to current operating outlays for social welfare programs, and the generally lessened need for capital equipment.[4] Furthermore, growth in Federal funds for capital projects was erratic and slower than that in other forms of Federal assistance because of impoundments by the Federal Government.

While capital spending perked up somewhat under the influence of Federal revenue sharing and increases in categorical assistance in 1973, there was growing evidence that State and local gross capital formation in real terms was not keeping up with a severe inflation in prices. Between 1968 and 1973, real capital formation was estimated to have dropped at a rate of 2.5 percent a year. In 1974, a sharp recovery in capital spending took place under the impetus of revenue sharing, the freeing of impounded Federal assistance, and the receptive bond markets of 1973 and early 1974. However, early estimates for 1975 indicate that tight bond markets, a leveling of Federal grants, and widespread stringency in the financial condition of State and local governments kept capital expenditures from growing to any noticeable extent in that year.[5]

Several econometric studies have explored the question of the impacts of both interest rates and Federal grants as determinants of State and local expenditure, revenue, and borrowing decisions. While such studies can be confounded by rapidly changing conditions and changes in behavior, they enjoy the benefits of specificity and quantification.

Turning first to the relationship between State and local borrowing and capital spending decisions, several investigators have found that rising interest rates decrease bond sales and, to a lesser extent, construction outlays. While experts differ on ways to estimate this effect, it appears that an elasticity of 0.4 to 0.6 (i.e., a 10 percent

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[3] Paul Schneiderman, "State and Local Government Gross Fixed Capital Formation: 1958–73," *Survey of Current Business* (October 1975), p. 18.
[4] *Ibid.*, p. 19.
[5] *Ibid.*, p. 26.

change in the interest rate involves a 4 percent to 6 percent change in the opposite direction in the gross new supply of bonds) is about in the middle of the range.[6] The sensitivity of State and local construction outlays to interest rates has been the subject of recent studies. These indicate a fairly high sensitivity to rising rates, with a negative elasticity in the order of −1.0 that over time diminishes to an equilibrium value of approximately −0.2.[7]

One recent review of the impact of the New York City crisis on the bond market and capital spending has estimated that sustained interest rate increases of 60 to 100 basis points would decrease total State and local construction expenditures on the order of $3½ to $4½ billion in 1976.[8] Spending cutbacks in response to high interest rates are predicted to reduce total GNP by $5–$9 billion.[9]

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[6] See Harvey Galper and John Petersen, *op. cit.* (1972).

[7] See Edward Gramlich and Harvey Galper, "State and Local Fiscal Behavior and Federal Grant Policy," Brookings Paper on Economic Activity I (1973), pp. 30–36. These elasticity values are somewhat higher than those found in the Federal Reserve Board studies.

[8] Edward Gramlich, "The New York City Fiscal Crisis: What Happened and What Should Be Done?" A paper presented to the American Economic Association Meetings, Dallas (December 1975), p. 21; F. G. Adams and J. N. Savitt, "Macroeconomic Impact of New York City Default," *Debt Financing Problems of State and Local Government: The New York City Case,* Hearings before the Subcommittee on Economic Stabilization of the Committee on Banking, Currency, and Housing, U.S. House of Representatives, 94th Cong., 1st Sess., II (Oct. 23, 1975), p. 1568.

[9] Gramlich, *ibid.,* p. 21, and Adams and Savitt, *ibid.*

Chapter V. CHANGING PATTERNS IN THE DEMAND FOR MUNICIPAL BONDS

The municipal bond market is part of the larger private capital market where governmental borrowers compete for the investment funds of private investors. In this competition for funds, municipal securitries are sometimes more successful than others and the degree to which they are depends greatly on the resources and appetite of those investor groups that find tax exemption of advantage. But factors other than tax shelter condition the market's demand for municipal bonds. Investors must weigh available tax-exempt yields against an assortment of risks to their funds that are committed, including the possibility that borrowers may default or that securities will drop in value for some other reason.

Out of the maze of calculations performed thousands of times each day, the market establishes its price for borrowed money. That price, in turn, enters into the decisions of would-be borrowers when they elect to sell new bond issues or wait for a better day.

Patterns of Investment in Municipal Bonds

The municipal market is distinguished by the nature of the investor and the volatility of his participation. The municipal security has certain appeals. Typically, these have been the attractiveness of tax exemption to those in high marginal tax brackets, the relatively high degree of safety of the investment and the availability of serial maturities. But at the same time, the demand for tax-exempt securitries has become inordinately volatile because the major institutional investors on whom the market relies for support are unusually subject to the pressures of monetary policy, the ravages of inflation, and sudden changes in portfolio policies. Furthermore, the dowdy municipal bond traditionally has been a second and third choice for investor groups, who—unless they envisage a long-term stay in high marginal tax brackets—usually seek out more lucrative and flexible tax shelters.

Records available on the ownership of municipals since 1933 indicate that there have been only three major groups of investors in municipal bonds: individuals, commercial banks, and insurance companies. Their combined holdings have constituted between 70 percent to 90 percent of all municipal bonds outstanding over the past 35 years.[1]

The exemption of municipal bond interest from Federal and many State and local income taxes is its greatest attraction to investors and shapes the market for municipals. Generally, investors in high marginal tax brackets have found it worthwhile to buy municipals, so long as the after-tax return is better than, or at least as high as, that on

[1] Unless otherwise indicated, the financial statistics in this section are taken from the Board of Governors, Federal Reserve System, *Flow of Funds Accounts 1945–72* (August 1973) and *Flow of Funds*, 3rd Quarter 1975 (November 1975).

taxable investments of similar quality. By the same token, investors who pay little or no taxes (pension and life insurance companies) have exhibited little interest in municipals.

In the period immediately following World War II, municipal bonds were a favorite form of investment by commercial banks, which, with lots of government securities and little loan demand, found themselves in a very liquid position. As the supply of municipal bonds expanded during the 1950's, commercial bank participation in the market began to fluctuate in a manner that was to become an important feature of the market. The household sector replaced banks as the dominant buyer in the 1950's; increasing support was also given by State and local retirement funds and insurance companies.

Higher rates of interest for tax exempt compared to taxable securities had an equally significant impact on the composition of the market for municipals. Under the pressure of a greater bond supply, the ratio of tax exempt to taxable yields went up from 60 percent for AAA bonds in 1950 to 72 percent by 1955 and about 75 percent by 1960 and 1961. For the lower grades the relative escalation was even worse, as the ratio of tax exempts to taxable bonds reached levels higher than 80 percent in the mid-1950's.[2]

Looking retrospectively at the 1950's, one notes that the rate of increase in outstanding municipal debt was a spectacular 12 percent per annum between 1949 and 1960 (at a time when a prices were rising only 4 percent a year). During the same interval, commercial bank deposits increased annually at only 6 percent, while bank loans rocketed upward at 10 percent per annum, as banks increased their loan to deposit ratios and gradually ran down their massive holding of U.S. Government securities.

Beginning in the early 1960's the municipal bond market entered a new and more favorable phase of investor participation. The essential elements were a greatly increased interest by commercial banks, which almost swamped the investment behavior of the market, fairly stable albeit relatively minor support from fire and casualty insurance companies, and sporadic—but in time very important—support from the formerly dominant household sector. The market was virtually abandoned by the other investor groups, notably life insurance companies and public pension funds.

These changes are reflected in the ownership figures for the last 25 years which are presented in table 5. As may be seen, between 1960 and 1970, banks acquired two-thirds of all the net new supply of municipal bonds, increasing their holdings to almost one-half of all outstanding municipals. This offset much more modest growth in household and fire and casualty company holdings and a net decline in municipals owned by all other investor groups.

Table 5, however, does not reveal an important characteristic of the tax-exempt bond market that emerged in the 1960's: the rapid ebb and flow of commercial bank purchases and offsetting investment of the household sector. Careful inspection of table 5, which gives annual net purchases of municipal bonds for the key investor groups from

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[2] John E. Petersen, *The Rating Game*, The Twentieth Century Fund (New York: 1974), p. 36.

1960 through 1975, shows a fascinating contrapuntal motion between changes in bank holdings and those of the household sector. The relationship is particularly evident in the tight credit years of 1966, 1969, and 1974–75. Looking at 1970–75, both tables 5 and 6 indicate a rapid slowdown of commercial bank investment in municipal bonds since 1971 and the increasing importance of individuals and fire and casualty companies. In the last 2 years, in fact, the household sector has absorbed 60 percent of the net new supply of municipal bonds.

TABLE 5.—OWNERSHIP OF STATE AND LOCAL SECURITIES, 1950–75

[Dollar amounts in billions]

	1950		1960		1970		1975[1]	
	Amount	Percent of total	Amount	Percent of total	Amount	Percent of total	Amount	Percent of total
Banks	$8.2	32.6	$17.7	25.0	$70.2	48.0	$102.0	45.7
Individuals	10.0	39.6	30.8	43.5	47.4	32.5	72.3	32.4
Fire and casualty insurance	1.1	4.4	8.1	11.5	17.8	12.2	33.7	15.1
Others	5.9	23.4	14.2	20.0	10.8	7.3	15.2	6.8
Total	25.2	100	70.8	100	146.2	100	223.2	100

[1] Estimate are the authors.

Source: Federal Reserve Board, "Flow of Funds."

TABLE 6.—ANNUAL CHANGES IN HOLDINGS OF MUNICIPAL BONDS 1960–75 (ESTIMATE)

[In billions of dollars]

Year	Commercial banks	Fire and casualty insurance companies	Households	Other	Total change
1960	0.7	0.8	3.5	3.0	5.3
1961	2.8	1.0	1.2	1.0	5.1
1962	5.7	.8	−1.0	−.1	5.4
1963	3.9	.7	1.0	.1	5.7
1964	3.6	.4	2.6	−.6	6.0
1965	5.2	.4	1.7	0	7.3
1966	2.3	1.3	3.6	−1.6	5.6
1967	9.1	1.4	−2.2	−1.5	7.8
1968	8.6	1.0	−.8	.7	9.5
1969	.2	1.2	9.6	−1.1	9.9
1970	10.7	1.5	−.8	−.1	11.3
1971	12.6	3.9	−.2	1.3	17.6
1972	7.2	4.8	1.0	1.4	14.4
1973	5.7	3.9	4.3	−.2	13.7
1974	5.5	1.8	10.0	.1	17.4
1975[1]	2.2	2.2	10.0	1.0	16.2

[1] Estimates are the authors.

Source: Federal Reserve System, Board of Governors, "Flow of Funds."

Commercial Banks

Over the last 15 years, changes in commercial bank behavior have dominated the course of the municipal bond market. Besides being attracted during the 1960's by tax exemption, banks experienced a rapid growth in assets, changed their attitudes and strategies toward portfolio investments, and developed new techniques for managing their liabilities. The end result was that while bank assets increased at an

annual rate of 8.3 percent during the decade of the 1960's (while GNP grew at 6.8 percent), bank holdings of municipal bonds grew at an annual rate of 13.7 percent. Municipal bonds grew from 7 percent of bank investments in 1950 to 22 percent in 1960 and finally peaked at 51 percent of portfolios by 1972. Banks thus were able to finance 70 percent of the growth in municipal debt between 1959 and 1969.

Although the market had its difficulties in periods of credit stringency, the huge appetite of the banks was a boon to the nimble borrower and municipal bond yields relative to those on taxable securities were at their best levels of the postwar period. The 1960's was a time of relatively sustained prosperity. With deposits growing more rapidly than loan demand in the early years of the decade, banks sought municipals as a profitable outlet for funds. Toward the end of the 1960's, banks came under increasing reserve pressure on occasion (notably in 1966 and 1969). But rather than keeping large stocks of short-term securities, they found it more profitable to run off their U.S. Governments and to meet their liquidity needs by promoting purchase of their liabilities, particularly through the sale of marketable certificates of deposit.[3]

Shorter term municipal bonds were also increasingly relied upon to meet cash needs.

As the 1960's wore on, banks became increasingly aggressive bidders for time deposits and, as the cost of these increased, so did their interest in municipal bonds. Reportedly, banks came to depend more on purchases of longer-term and lower-grade municipals in an effort to improve their current income.[4] The recurring tight-money periods toward the end of the 1960's, however, encouraged prudence and banks began to increase their holdings of short-term municipal notes. With the switching out of U.S. Governments and the liquidity binds that maturing CD's could create, the investment in municipal securities became an increasingly important form of liquidity.[5] Banks in the 1960's had other reasons to find municipals more attractive than did other investors. Perhaps the most significant was the banks' privilege—not shared by individuals—of deducting the interest cost of funds borrowed to acquire tax-exempt securities. Thus, as interest costs on deposits rose, banks were motivated to increase their holdings of tax-exempt bonds.[6]

By the early 1970's it was obvious that the powerful thrust of bank support in the municipal bond market had certain one-shot qualities.[7] During the 1960's banks had switched heavily into municipals and out of U.S. Governments, the latter falling from 31 percent of total assets to 13 percent by the end of 1970. This seemed to be a dangerously low level of liquid securities for banks, making them too dependent on their ability to sell increasingly expensive short-term liabilities to meet cash

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[3] Robert Huefner, *Taxable Alternatives to Municipal Bonds*, Research Report No. 53, Federal Reserve Bank of Boston (1972).

[4] *Ibid.*

[5] *Ibid.*, p. 159.

[6] Brian J. Fabbri, *Commercial Bank Investments in the Postwar Period* (New York: 1975), p. 27.

[7] See Frank Morris, statement before the Committee on Ways and Means, U.S. House of Representatives, Panel No. 8, *An Alternative to Tax-Exempt State and Local Bonds* (February 1973), p. 29.

needs. Further, bank appetite for tax-exempt bonds was being dulled by availability of other tax shelter vehicles. Most notable has been increased use of direct leasing operations, which grew from almost nothing in 1963 (when it was authorized for commercial banks by the U.S. Comptroller) to $790 million in 1970 and then exploded to $2.4 billion by the end of 1974.[8]

In addition, banks have rapidly expanded foreign operations. In the last 10 years, these have grown 16-fold to the point where they now represent nearly 20 percent of total bank assets. Foreign assets reportedly contributed more than 40 percent of the total 1974 earnings of the 10 largest banks.[9] Domestic banks are permitted to take a foreign tax credit against domestic taxes and also, in the case of foreign subsidiaries, are permitted to defer taxes on income until it is repatriated.

Both leasing and foreign income operations require large amounts of capital and are therefore most attractive to the largest banks. And, not surprisingly, it is those banks that have displayed the least interest in municipals since 1970. In fact, bank support for the municipal bond market has come almost exclusively from the smaller country banks. From year-end 1972 through 1974, banks with deposits in excess of $500 million actually ran down their holdings of municipals, while banks with deposits of less than $100 million increased their holdings by $7.2 billion or 75 percent of the total increase in bank holdings during the period.

Another factor that has influenced bank demand, but one that is changing, is the need for securities to act as collateral on public deposits, a practice known as pledging. Typically, U.S. Government and municipal securities have been used for this purpose and, as public deposits grew, so did the demand for these instruments. For many banks, the volume of pledged assets has reportedly represented up to 75 percent of their security portfolio, and it has been estimated that the share of pledged securities grew from 22 percent of total bank investments in 1959 to nearly 40 percent in 1974.[10]

In 1975, legislation was passed that raised the level on Federal insurance on public time deposits from $10,000 to $100,000. Since such insurance usually suffices for a pledge, this action has probably diminished the demand for municipals for this purpose.[11]

The most recent development in bank investment policy has been the major shift into short-dated U.S. Government securities during the present cyclical contraction, a time that used to favor municipal purchases. Increasingly concerned about liquidity and quality and less sanguine about aggressive liability management, banks have largely forsaken the municipal bond market to finance the Federal deficit and to stand by for the rise in loan demand which recovery is expected to bring.

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[8] Fabbri, *op. cit.*, p. 31. Leasing is extremely profitable in that it permits not only higher income than normal loan charges, but enjoys the tax advantage of the investment tax credit permitted of the purchased equipment to be leased and its accelerated depreciation.

[9] *Ibid.*, p. 32.

[10] *Ibid.*, p. 5.

[11] See John Petersen, "Pledging Requirements and Full Insurance of Public Deposits," *Analysis*, Municipal Finance Officers Association (1974). The effects of the change in the level of deposit insurance are being examined in a study by the Advisory Commission on Intergovernmental Relations.

Summarizing the recent developments in bank demand for tax-exempts, one commentator has observed:

From the issuers' point of view, the increased portion of their debt taken down by banks increases their financing exposure disproportionately to the vagaries of restrictive monetary policy. In addition, as larger banks continue to expand their leasing and foreign branch banking activities, their needs for tax-exempt income derived from state and local securities will diminish. This further restricts state and local governments into a more concentrated market for their debt financing, since funds will be provided by only the medium and small size banks, and thereby increases their market risks.[12]

Fire and Casualty Insurance Companies

The only other consistently important institutional investor in municipal bonds is the fire and casualty company sector. Though much less important than the banks, the growth in buying interest of fire and casualty companies has been relatively stable over the long run. It too displays variability from year to year, however, that can either offset or reinforce the demand of banks.

Fire and casualty companies' investment in municipals is affected both by the availability of investible funds and by their needs for tax shelter. Generally, these companies buy tax exempts only when they need to shelter profits that otherwise are taxable at the full marginal corporate rate. Their acquisitions have been shown to be sensitive to changes in policyholders' surplus.[13] When industry profits are declining, the companies will generally shift to taxable bonds. From time to time, they also acquire equities, which is their alternative tax shelter to tax exempts. Last, their investment demand can be subject to drastic fluctuations due to large claims generated by disasters against which they have insured.

Fire and casualty purchases are especially important to the longer end of the municipal bond market, and, frequently, in lower-rated revenue bond issues, since insurance companies buy for yield rather than liquidity. In the early 1970's, these companies were unusually active in the municipal bond market, as they acquired nearly 30 percent of net new issues. (See table 6.) However, as a result of galloping inflation and its impact on claim levels and the inability to raise premiums, the fire and casualty industry has been depressed by operating losses.[14] Both their overall acquisition of assets and their demand for municipal bonds have consequently dropped drastically. Prospects for rapid recovery in the sector are poor, so it is unlikely that their investment demand, apart from occasional spurts, will become proportionately greater.[15]

Households

The household sector, while diminishing in importance as an investor in municipal bonds over the past 20 years, has continued to play

[12] Fabbri, *opp. cit.*, p. 33.
[13] Huefner, *op. cit.*, pp. 172–74.
[14] Salomon Brothers, "Fire and Casualty Industry—Earnings Review" (Dec. 5, 1975).
[15] *Ibid.*, p. 4.

a vital role in the market. Historically, it has picked up the slack when institutional demand has ebbed for tax exempts. At such times—generally, when money is tight—rates on municipal bonds have increased faster than rates on taxable securities, and individual investors have become very important in supplying funds to the market.

The household sector is, in fact, a conglomeration of investor groups. It is the residual after known institutional holdings are subtracted from the total stock and flow figures collected by various regulatory agencies. As such, the household sector consists of individual investors, personal trusts, unincorporated business holdings of bond funds, and discrepancies. Individual investors are thought to own directly about half of the household sector's holdings of tax exempts, with trusts and bond funds accounting for the other half.[16] Information on this investor group is scanty because there is no direct regular reporting of individual holdings of municipals (a factor that probably contributes to demand from more secretive investors). But there is no evidence to controvert the widely-held and traditional belief that most individual owners are wealthy, high-income individuals who acquire fixed-income securities because they are a relatively safe form of tax shelter. However, for certain issues and at times when municipal bond yields are high, a cadre of smaller individual investors interested in high returns at the sacrifice of some liquidity and risk probably swings into the market. The advent of the tax-exempt bond fund has also made the market more accessible to the smaller investor of moderate means.[17]

Information on the economic status and market behavior of individual investors may be derived from several sources; none, unfortunately, is of recent origin.[18] However, it is clear that although individual holdings of municipals are relatively important to the tax-exempt market, they represent a small and relatively stable share of individual holdings of financial assets. As table 7 shows, municipal bonds have represented about 3 percent of wealth of the household sector over the last 25 years. This is in contrast to stock ownership, of which the relative proportion rose to more than 40 percent in 1960 and fell to 25 percent in 1974.

Recent studies indicate that municipal bond ownership, while covering a spectrum of income levels, is highly concentrated in the upper-income brackets. The average marginal tax rate for municipal bond owners has recently been estimated to be approximately 55 percent. Evidently, about 70 percent of municipal bonds held by households are owned by units with incomes of $50,000 or more.[19]

Furthermore, because inflation pushes investors into higher marginal tax brackets as nominal income rises, it can be expected that tax-exempt holdings will increase in the highest marginal tax brackets simply because more taxpayers find themselves there.

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[16] Petersen, *Rating Game,* p. 68.
[17] See Huefner, *Taxable Alternatives,* pp. 168–170.
[18] *Ibid.,* pp. 57–58.
[19] Harvey Galper and George Peterson, "The Equity Effects of a Taxable Municipal Bond Subsidy," *National Tax Journal* (December 1973), p. 617.

TABLE 7.—MUNICIPAL SECURITIES AND CORPORATE STOCKS AS A PERCENTAGE OF HOUSEHOLD FINANCIAL ASSETS

[1950–74]

Year	Percentage of financial assets	
	Corporate stock	Municipal bonds
1950	30.9	2.9
1960	40.9	3.2
1970	38.2	2.4
1974	24.0	2.8

Source: Federal Reserve Board, "Flow of Funds."

Some analysts contend that this "bracket effect" will be of growing importance to municipal investment by individuals and might meet the future demand for municipals.[20] However, there is no evidence that it has been a significant part of total household demand to date.

[20] A. W. Sametz et al., "The Financial Environment and the Structure of Capital Markets in 1985," Graduate School of Business, New York University, Paper No. 24 (n.d.), p. 25.

Chapter VI. GROWING CONCERNS OVER CREDIT QUALITY AND INFORMATION

Throughout 1975, the municipal bond market experienced an erosion in credit quality. That is to say, the market began to worry about debt being repaid and, accordingly, began to demand higher rates of interest on borrowings and, in some cases, was unwilling to muster any bids at all for certain borrowers. Of course, other factors were depressing municipal bond demand. Still, the bulk of recent evidence indicates that the market was turning a sharp and, for most governments, an expensive corner in its perception of the risk associated with municipal debt.

Credit crises of the Urban Development Corporation and New York City led to financial turbulence in the municipal bond market, and borrowing costs rose significantly in 1975 for some units. Front-page examples of the erosion in credit quality were New York State and its agencies and localities, as well as other large cities and various agencies.

At the same time, it was also clear that since not all borrowers faced the same suspicions in the market, the cost of waning confidence was not affecting all borrowers equally. In fact, some observers argued that borrowers with high quality credit standing might even have benefited by the flight of funds from lower-grade credits.

A review of the trend in bond rates prior and during the New York debacle left little doubt that, whatever the specific reasons, the capital market was casting an increasingly jaundiced eye on the borrowings of State and local governments. Interest rates rose throughout 1974 and, after a slight drop in spring 1975, displayed a volatile and uncertain rise through June 1975. Thereafter, the rise in yields accelerated through the third quarter and remained near their October highs for the remainder of the year.

These general movements in interest costs reflect several forces at work in the tax-exempt market and, indeed, in all the capital markets. These include the credit crunch and associated bank liquidity crises that peaked during the third quarter of 1974; the rapid deterioration of the economy in late 1974; the emerging fiscal pressures on State and local governments in 1974 and 1975; and, in the latter stages, a growing fear of the consequences of default by the two largest municipal borrowers—the city and State of New York.

Such conditions make it difficult to identify a specific date signalling a distinct erosion in market confidence about municipal credit quality. However, from the present vantage point, it seems that the first offering of the Municipal Assistance Corporation (M.A.C.) bonds to assist the city of New York at the beginning of July was a pivotal event. Hopeful of persuading private capital to provide $3 billion in 3 months, the municipal market quickly acknowledged that its capacity

to absorb M.A.C. debt was practically exhausted by the first batch of $1 billion.

It became evident that there would be no solution short of default without the involvement of the Federal Government and the market slid even deeper through the fall of 1975.

When New York's problems reached the Congress and the question of what to do about them became a national issue, greater attention was given to the city's relationship with the deteriorating municipal bond market. Rapidly rising costs of borrowing for all, and astronomical interest charges for some, began to focus the attention of many on the market's general woes. Moreover, it was clear to many that, whatever might be the longer term consequences of a default for the city and State of New York, the market was discounting such a possibility. The impact of this process on the market as a whole seemed serious enough to justify helping the sick borrowers simply to keep the contagion of weakening confidence from spreading throughout the municipal bond market.

Several attempts have been made to gage the costs of the New York syndrome to the rest of the municipal bond market. Early estimates were hampered by lack of data and procedures to make allowances for other factors that were also changing. Nevertheless, even casual review of bond sales and interest rate indices showed that borrowing costs were rising severely, particularly for those borrowers in the lower rating categories. However, a reasonably comprehensive statistical study released early in November 1975 provided much evidence that not only were interest costs rising for municipal borrowers throughout the country, they also were displaying strong regional and credit quality differentials.[1] The study estimated that, using the pattern of interest rate impacts present in the third quarter, the deterioration in investor confidence was producing added interest costs for State and local governments on the order of $150 million per year. Because the debt sold under such conditions would be outstanding for a period of years, the total additional costs would sum to approximately $1½ billion over the lifetime of the bonds.[2]

The incremental costs, moreover, were not spread uniformly throughout the Nation. The study estimated on the basis of a large cross-section sample of sales that the increase in borrowing costs in the third quarter of 1975 ranged from a relative small one-tenth of one percentage point in the North Central region to approximately one-half of a percentage point for New York State localities (other than New York City) and borrowers in other Middle Atlantic States.[3] Even more startling than the increases in bond yields were the upsurges in short-term interest rates, which the study estimated were hiking annual short-term borrowing costs by $200 to $300 million, with most of the effect concentrated in the Northeast.[4]

In another recent study, Edward Gramlich used regression techniques to measure the interest rate difference between yields on munici-

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[1] Forbes and Peterson, "Costs of Credit Erosion," *op. cit*
[2] *Ibid.*, p. 15.
[3] *Ibid.*, p. 8.
[4] *Ibid.*, p. 17.

pal and corporate bonds of the same rating.[5] He then calculated that the interest rate spread between like-rated corporate and tax-exempt bonds had narrowed in 1975 much more than historical experience would have suggested. For the first three quarters of the year, Aaa tax-exempt rates were estimated to be 13 basis points higher than predicted while those on Baa bonds were 74 basis points higher. Concentrating on the third quarter, Gramlich found a weighted average increase in yields on municipals of more than 60 basis points. While it would be an extreme assumption to attribute all of this impact to the New York crisis, it is clear that a massive erosion in credit confidence had taken place and that the great majority, if not all, municipal borrowers were suffering from increasing exactions for risk.

Demand for More Information

Worries about fiscal condition of borrowers had several sources. An important part of the speculation stemmed from concern over the quality and timeliness of information about governmental finances and how to interpret financial statistics, once having acquired them from governmental borrowers. This concern was not limited to the citizen-layman, but also infiltrated the highest circles of the national political and financial community. The fact was that after years of disinterest, the reading and understanding of public financial statements took on an immediacy and importance it had not had for 40 years. As the long prosperity of the post World War II era had gained momentum, investment bankers and investors became less interested in the particulars of municipal financial statements and delegated the examination of credits to a small coterie of experts and, in particular, to the nationally recognized rating agencies of Moody's and Standard & Poor.[6]

Aside from periodic squabbles with issuers who thought they deserved higher ratings—especially New York City—the municipal bond market and the public at large seemed content to see ratings gain influence. It was, after all, an economical and easily understood system. Besides, the impact of ratings and interest cost differentials, while significant, declined throughout the past 2 decades as the market's memories of Depression defaults dimmed.

Nevertheless, occasional fears were expressed that there was not enough current information about financial conditions and that the agencies, while meeting the market test for information, could not and should not be expected to do the job for everyone. A major complaint was that the ratings conferred were essentially public property, being purchased by the issuers, but the criteria used to assign them were not.[7]

Aside from greater disclosure of how ratings were constructed, the other suggestion most often heard has been to establish a national clearing house of information on State and local financial information.[8] But even were such an entity to exist, there remains the problem

[5] "The New York Fiscal Crisis, *op. cit.*, p. 20.
[6] For a recent examination of the credit rating agencies, their influence on the market, and proposals for change, see Petersen, *The Rating Game, op. cit.*
[7] *Ibid.*, p. 8.
[8] *Ibid.*, pp. 14–18.

of timeliness, uniformity, and completeness in gathering financial data. Obviously, the optimal solution to these problems depends upon the use to which the information will be put.

State and local governments are capable, as are most organizations in the age of the computer, of generating enormous supplies of data. The questions of both how and what data should be provided to meet the analytical needs of the financial markets is the subject of at least one research effort, that being conducted by the Municipal Finance Officers Association. With an estimated 40,000 State and local entities having 120,000 outstanding bond issues and 8,000 new bond and note sales occurring each year, the problem will not easily be solved.

With the current mood of caution and uncertainty, the municipal bond market has displayed increasing wariness of all municipal borrowers and, by latest reports, a disposition to shun or heavily penalize those that might be suspect. In the absence of "enough" facts and confidence in how to analyze them, it now appears that rumors might suffice to discriminate among credits.

To complicate an already muddled situation, two other events unsettled the municipal securities industry at the end of 1975: New, less restricted Federal bankruptcy laws were progressing through Congress and the industry was brought under regulation, from which it had been previously exempted. The proposed amendments to the Federal Bankruptcy Code, coupled with the moratorium on certain New York City notes that was enacted by the State of New York, reinforced doubts about the ability of some governments to pay, with misgivings about their continuing willingness to pay their debts, when presented with the option of going into bankruptcy. Promoted as part of the New York City assistance package, the bankruptcy measure sped through the House and Senate in December amid warnings that its enactment would cause many investors to lose further confidence in general obligation bonds in particular. As of the end of 1975, the bankruptcy legislation still had not been subject to a final vote in Congress.

Municipal Bond Market Regulation and Disclosure

Another element of uncertainty in the municipal bond market has been the passage of the Securities Acts Amendments of 1975, which were signed into law on June 5, 1975. These amendments extended regulation to the municipal bond market under the Federal securities laws. The new municipal regulation calls for registration and regulation of municipal security dealers by the newly-created municipal securities rulemaking board. Prior to passage of the amendments, brokers and dealers doing business solely in municipal securities were not subject to regulation by the Securities and Exchange Commission or any other regulatory agency of the Federal Government. Now the rulemaking board has the responsibility for developing regulatory provisions, subject to SEC oversight.[9]

As the central authority in what is basically a system of industry self-regulation, the 15-member municipal securities rulemaking board

[9] John Petersen and Robert Doty, "Regulation of the Muunicipal Securities Market and Its Relationship to the Governmental Issuer," *Analysis*, Municipal Finance Officers Association (December 1975).

has very broad powers for establishing periodic examination and inspection programs, recordkeeping requirements, and rules to assure fair market practices. Yet, while the board has power to adopt rules, the SEC retains the ultimate authority to delete or amend such rules or to compel adoption of new rules, if necessary.

Under the amendments, governmental issuers retained their exemption from the registration requirements of the Securities Act of 1933 and from the registration and reporting requirements of the Securities Exchange Act of 1934. Of particular importance, neither the SEC nor the board can require an issuer of municipal securities to file information prior to the sale of securities. In addition, the board cannot require an issuer to furnish information on itself, either directly or indirectly through a municipal securities dealer or otherwise. (The board can require dealers to supply only such information about issuers that is generally available from a source other than the issuer.[10])

However, the Senate report on the legislation noted that, although the new law would not permit direct or indirect requirements for review of issuer documents prior to sale, they remain subject to antifraud provisions: "The bill assures that access of State and local governments to the capital markets will not be regulated in ways not now permitted under the fraud provisions of the Federal securities laws."[11] Thus, from the perspective of the governmental issuer, the exemptive amendments in the Securities Act Amendments of 1975 are of only limited effect. Despite these amendments, the antifraud provisions of the Federal securities laws still apply to offerings and other transactions in municipal securities. Consequently, issuers had and are still meant to have an obligation under the Federal securities laws not to misstate or omit material information.[12]

The objective of the issuers' exemption was to preserve existing practice and responsibilities in the municipal bond market for provision of information. However, with the eruption of the New York Urban Development Corp. note default in March and the emerging crisis in New York City, dealers began to believe that some control over credit information might be needed. As a result, they objected to some of the exceptive language.[13] But these objections came late, and the nature of these controls was never broached in the hearings on municipal regulation.

Recently, amid the national focus on New York City and its financial practices, several critics have called for regulation of information provided by issuers.[14] Proposed approaches have been registration of municipal securities under the Securities Act of 1933, or repeal of exemptions under the 1934 act to permit regulation of issuer information by the rulemaking board.[15] Another proposal has been the creation of a new regulatory scheme or body made up of issuers to deal with governmental disclosure problems, probably under the Federal

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[10] Section 15B(d) (1) and (2) of the 1934 Securities and Exchange Act.

[11] Senate Report No. 94–75: Securities Act Amendments of 1975 (April 1975), p. 47.

[12] The antifraud provisions include Section 17 of the Securities Act of 1933 and Section 10(b) of the Securities and Exchange Act of 1934.

[13] Committee on Interstate and Foreign Commerce, House of Representatives, Hearings on H.R. 4570 (March 1975).

[14] Robert J. Cole, "Holding Municipal Bonds up to the Light," *New York Times* (Oct. 26, 1975), Section 3, p. 1.

[15] Bills to this effect were introduced by Senator Eagleton and Congressman Van Deerlin. SEC Commissioner Arthur Sommer and Treasury Secretary William Simon have also indicated the need for legislation in this area.

securities laws, or some form of regulation on a voluntary basis.[16] In the absence of such regulation, the main discipline is provided by the market, reinforced by state laws, to enforce the acceptance of standards of disclosure and diligence procedures that underwriters and others would require of governments in order for them to sell securities.[17]

At the heart of the current disclosure problem is the uncertainty surrounding legal liability of bond dealers for existing antifraud provisions. The two forces converging are the evolutionary development of the antifraud provisions (that predate the 1975 Securities Amendments) and the fear of large-scale defaults in municipal bonds. Should losses occur, they might give substance to long-standing legal exposures of which securities dealers and others were oblivious when markets were better. In practical terms, regulation of the issuer and a mechanism to promulgate and enforce disclosure requirements would permit dealers at least to identify their duties and legal liabilities for disclosure.

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[16] See Lennox Moak, statement before Committee on Banking, Housing and Urban Affairs, U.S. Senate (Oct. 9, 1975).

[17] See Petersen and Doty, *op. cit.*, and "Suggested Guidelines for Disclosure and Municipal Bond Offerings," Municipal Finance Officers Association (Nov. 10, 1975, draft).

Chapter VII. FUTURE DEMAND FOR CAPITAL FUNDS

The bulk of State and local borrowing over the next 5 years will be to finance construction of public facilities. As discussed earlier, these governments engage in numerous capital projects, although their share of real capital formation in the economy has declined since 1965. Looking ahead, one must make interlocking assumptions about the real forces of demand for capital goods by State and local governments, how these demands will be constrained by the overall financial resources of governments and, as a result, how much the capital markets will be called upon to finance capital spending through the sale of State and local debt. There are other problems, not the least of which is whether the capital markets, as they seek to match the supply and demand for funds, will have the capacity to absorb desired levels of borrowing at rates of interest that governments are willing to pay.

The problem is complex, but, fortunately, there are studies that give insights on how these factors will interact over the next 5 years to produce relative strain or ease in the tax-exempt bond market. From that analysis one may infer also whether the market must be altered or changed. The conclusions of these studies and assumptions which underlie them are summarized in table 8.

TABLE 8.—SELECTED STATE AND LOCAL GOVERNMENT OUTLAYS AND BORROWING AS ESTIMATED FOR 1980

[Billions of dollars]

Source	GNP	Estimate State and local in 1980			
		Total expenditure	Capital outlays	Long-term borrowing	Total debt
Tax foundation [1]	2,140	326	58.4	35.0	285
Bosworth et al.[2]	2,387	381	66.6	33.0	292
Fortune [3]	2,533	NA	69.1	36.5	NA
Taylor [4]	2,418	373	NA	41.7	351
Ott & Ott [5]	2,428	399	55.0	31.0	NA

[1] Tax Foundation, "The Financial Outlook for State and Local Governments to 1980" (1972). GNP: 8 percent annual growth rate, 1970 to 1980 (p. 25). Expenditure: $320,000,000,000 adjusted by ratio of expenditures as defined by Bureau of Census to that defined by Department of Commerce in National Income Accounts, 1.018 for fiscal and calendar year 1973, respectively (p. 75). Capital outlays, borrowing debt: as preceding the original figures have been adjusted to calendar year by 1973 ratio of 1.008 (pp. 100–101).

[2] B. Bosworth, J. Duesenberry, A. Carron, "Capital Needs in the Seventies" (1975). GNP 9.2 percent annual growth rate 1973 to 1980 (p. 12). Other items are as published (pp. 35, 57).

[3] P. Fortune, "The Financial Impact of the Federal Water Pollution Control Act; The Case for Municipal Bond Reform" (1975). GNP 9.0 percent annual growth. Capital outlays derived from adjustment of construction expenditures by 1.180 (table 3); borrowing calculated from values on table 3 and equations (table 2); $4,500,000,000 in borrowing is for pollution control purposes (table 7).

[4] S. Taylor, "A Financial Background for Project Independence" (1974?. Current dollar GNP 9.2 percent annual growth rate, 1974–80 (table 1); expenditure (table 1), borrowing $25,800,000,000, net flow (table 3) plus $15,900,000,000 long-term debt requirements; debt (table 5).

[5] D. Ott and A. Ott, "State-Local Finances in the Last Half of the 1970's" (1975). Current dollar GNP 9 percent annual growth rate, 1974–80 (p. 91), Expenditures (table 5-2), adjustment to a capital outlay base; borrowing (calculated from equation E.12, p. 28).

Public Construction in the Years Ahead

The nature of State and local public construction will continue to change. The prospect is for continuing reductions in real capital outlays for schools and highways, with moderate growth in other traditional categories and greater emphasis on environment and transit needs. This was the thesis of the recent Brookings study, *Capital Needs in the Seventies*, which called for generally higher levels of State and local capital spending.[1] It is estimated that waste treatment and sewer expenditures (in 1972 dollars) stimulated by the Federal water pollution program, will rise sharply to $5.7 billion in 1977, easing to $5 billion by 1980.[2] Of the total $38.8 billion the study projected to be spent between 1972 and 1980 by State and local governments, a total of $25.8 billion is expected to be financed by Federal grants. In the area of mass transit, the Brookings Needs study foresees nonhighway transit and utility system rising over the next 5 years, stimulated in part by increasing Federal grants.

The Brookings study foresees a continuing growth in total State and local government spending, with capital spending staging something of a comeback through the remaining 1970's. It predicts that construction outlays for waste treatment and mass transit will more than offset slowdowns in school and highway construction, thus increasing total capital spending by nearly 10 percent per year between 1973 and 1980. This would be significantly higher than the 7 percent growth rate of the 1960's [3], and would reverse the decline in real capital spending of the last 6 years.

The accuracy of these projections will depend heavily on available methods of capital financing. Perhaps the most notable feature of the Brookings report is the belief that a large part of increased expenditures will be supported by Federal grants. Federal grants for capital projects are expected to rise faster than other grants (9.9 percent versus 6.2 percent), and they are estimated to support 26 percent of state and local capital outlays by 1980. But grants alone won't do it, and the Brookings study also foresees a growing reliance on additional nondebt financing of funds. As a result, bond sales for capital purposes are anticipated to grow at only 7 percent per annum through the late 1970's, as opposed to the 7.4 percent increase in the 1960's and 11.2 percent in the 1950's. By 1980 it is estimated that bond issues will be supporting 50 percent of State and local capital spending.[4]

The *Capital Needs* projections are unique in their integration of uses and sources of capital funds and their implications for the financial market. A study by the tax foundation also forecasts State and local government spending and borrowing and thus presents us with results from differing assumptions and a basis for analysis of *Capital Needs*' conclusions. The tax foundation study, carried out in 1972 on the basis of 1970 data, used the definitions and data bases of the Bureau of the Census, and it requires some adjustments to facilitate comparisons. It assumed less inflation and more real growth than the economy has experienced in the first 5 years of the 1970's.

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[1] B. Bosworth, J. Duesenberry, A. Carron, *Capital Needs in the Seventies* (1975).
[2] *Ibid.*, pp. 20–21.
[3] *Ibid.*, p. 36.
[4] *Ibid.*, pp. 56–57.

The major contrasts are that the tax foundation study forecasts a somewhat smaller share of GNP for State and local expenditures (15.2 percent as opposed to 16 percent in the *Needs* study), their capital outlays as being a bit more important in such expenditures (17.9 percent as opposed to 17.5 percent and borrowing as being much more significant as a source of funds for State and local outlays (60 percent compared to 50 percent). By and large, the tax foundation study provides an estimate of capital outlays and demands for borrowing if the economy and State and local sector were to grow more slowly in accordance with traditional spending and revenue patterns.

The above studies can be criticized on several grounds. Both suggest high levels of Federal gants ($67 million for *Needs* and $63 billion for tax foundation, annually by 1980), an assumption which is increasingly less realistic. The $17.1 billion in Federal capital grants forecast for 1980 by the *Capital Needs* study would require a 12½ percent rate of annual growth over the next 5 years to rise from the level of $9.5 billion budgeted for Federal grants in fiscal year 1975.[5]

The *Needs* study, as one critic has noted,[6] calls for an absolute growth in municipal bond issues equal only to that experienced between 1965 and 1973 ($1.5 billion a year). Correspondingly, it foresees a relatively large increase in the amount of support to capital spending from nongrant and nonborrowing sources. Other financing—short-term loans and current receipts—is expected to triple by 1980—up to $16.5 billion from $5.2 billion in 1973.[7] Since is is unlikely that financing from other sources, especially current receipts, will increase sufficiently to accommodate as much as 26 percent of capital expenditures, borrowing may be expected to carry a greater part of the load. If, for example, the composition of financial support were to remain the same in 1980 as it was in 1973, bond sales would equal $41.9 billion, approximately the amount of borrowing envisaged by the Taylor projections (to be discussed below. And if, indeed, the State and local sector is experiencing an $18 billion deficit by 1980, as the *Needs* study suggests, it is likely that pressure on current revenues for current outlays will be too great to permit much funding of capital expenditure.[8]

A relatively optimistic view of the overall balance of receipts and expenditures in the State and local sector and of the difficulties in meeting capital financing needs is presented in David and Attiat Otts' recent study. *State-Local Finances in the Last Half of the 1970's.* Assuming a relatively moderate rate of real growth and inflation, they project the sector moving toward budget surpluses and, because of demographic changes, having relatively low levels of capital outlay requirements. Meanwhile, Federal grants are projected to grow rapidly to meet most environmental and mass transit financing needs, reducing the need for borrowing.

In fact, the Ott study foresees moderate capital spending as a critical factor in helping to hold the lid on State and local spending and as

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[5] *Special Analysis,* Budget of the U.S. Government for fiscal year 1976 (1975), p. 69.
[6] E. Renshaw, "The Financing of Capital Expenditures by State and Local Governments in the Remainder of the Seventies," mimeographed (1975), p. 10.
[7] *Capital Needs, op. cit.,* p. 69.
[8] *Ibid.*

permitting a surplus to develop by 1980.[9] The possibility of this outcome is reinforced, they calculate, because it is based on experience in the 1950's and 1960's when State and local revenues were estimated to be somewhat more responsive to inflation than expenditures, thus giving a boost toward a surplus position.

Two other studies have concentrated on the role of municipal bond demands in the capital markets, focusing on stresses and strains created primarily by the financing needs of business. The study by Peter Fortune on borrowing requirements to finance water pollution control illuminates the potential demand which the pollution control bond places upon the municipal bond market.[10] Fortune uses an econometric model of State and local construction and borrowing demands to tie additional capital requirements generated by the stiffening standards of the water cleanup program to projected levels of GNP and other investment determinants. Assuming a $2.5 trillion GNP by 1980. Fortune predicts both higher capital outlays and borrowing levels than those forecast by the tax foundation and Brookings analysts (although as a percentage of GNP, the differences among estimates are not drastic). The study is notable for the allowance for approximately $15 billion in tax-exempt pollution control bond demand over the last half of the 1970's. (In 1980, such sales are estimated to account for a relatively "modest" $2.2 billion in the total volume of tax-exempt sales along with $2.5 billion in bond sales attributable to State and local public plant and expenditure needs).[11]

The largest estimates of State and local borrowing needs in 1980 are contained in recent projections by Steven Taylor of capital market stocks and flows for 1980 and 1985.[12] Taylor's analysis, done in 1974, uses a national income real demand model to develop estimates of credit flows on the basis of historical patterns. It posits municipal bond sales at levels about 30 percent higher than those in the Brookings study. Taylor's study, which does not explicitly relate State and local expenditures to capital outlays, predicts a high, 12 percent annual rate of increase in State and local net borrowing—greater than that experienced in the 1960's. The Taylor study, like the Brookings endeavor, assumes growing Federal surpluses and a high-investment economy,[13] for capital spending and borrowing. It seems most realistic to forecost municipal bond borrowing nearer to $40 billion. This has ramifications for the demand, in turn, on the capital markets.

Both the Brookings and Taylor studies project State and local borrowing needs as part of the total demand for capital in the economy. Both, using somewhat different base years, call for a GNP of approximately $2.4 trillion by 1980, and both project generally higher levels of private domestic, investment than those conceived in the late 1960's and early 1970's. Perhaps most significant is the assump-

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[9] Based on statistical models, the Otts find forecasted state and local construction expenditures are held down by the pressure of inflation on interest rates (to which real capital expenditures are sensitive; however, in dollar terms, they grow enough to offset the impacts of the higher cost of capital. *State-Local Finances in the Last Half of the 1970's* (1975), pp. 95–98.

[10] "The Financial Impact of the Water Pollution Control Act," *op. cit.*

[11] *Ibid.*, table 7.

[12] "Financial Background for Project Independence" (1974).

[13] *Ibid.*, pp. 15–16.

tion shared by both that the Federal Government will run surpluses and, in the case of the *Capital Needs* study, ample ones. But the studies vary considerably in their projections of capital market claims.

In reviewing the competition for credit, the *Needs* study makes the major assumption that higher levels of business borrowing will be largely offset by slower growth in State and local government debt and a decline in the volume of publicly held Federal debt. Also foreseen is a growing role for depository institutions. Generally, the *Needs* study is sanguine about the ability of the capital markets to absorb State and local debt through the traditional source of demand, commercial banks and people with high incomes.[14] The Taylor study, while projecting a much higher level of net municipal borrowing, envisages a mixture of investors in municipals much as in 1970, except that commercial bank holdings are supplanted by increased holdings by individuals and, interestingly, by direct Federal loans.[15]

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[14] *Capital Needs*, p. 69.
[15] Taylor, Table 15.

Chapter VIII. POLICY OPTIONS TO IMPROVE THE MUNICIPAL BOND MARKET

Preceding chapters have reviewed several changes in the municipal bond market and a number of problems that attend them. Many concerns are long standing—for example, those relating to the cyclical nature of demand for tax-exempt bonds and the gyrations in their rates of interest. Others are of relatively recent vintage—the soaring use of tax exemption to finance nontraditional activities and the reappearance of apprehensions about municipal creditworthiness after years of absence of doubt in the minds of investors.

Most problems in the municipal bond market have been the subject of professional and congressional discussion at one time or another, and a host of solutions have been devised to moderate or eliminate them. In this section, the problems of the tax-exempt bond market are organized into broad groupings that are potential targets for policy action. Briefly, such targets might be broadening the market, improving the efficiency of the tax-exempt subsidy, improving the tax equity of tax exemption, and lowering the cost of borrowing for particular borrowers. Next, recent proposals for credit assistance to State and local governments at a national level are reviewed. They are then discussed briefly in terms of this ability to meet certain criteria, implicit or explicit, that have specified for Federal involvement in the borrowing decisions of State and local governments.

Broadening the Market for State and Local Securities

Many complaints about the tax-exempt market can be traced to the nature of a market that relies heavily on a limited number of institutional and individual investors with a limited appetite for a long term, tax-exempt security. As a result, the supply of tax-exempt bonds intermittently has outpaced demand, at which times the market cannot be cleared except at higher rates of interest. At such times tax-exempt rates rise relative to yields in other markets, tend to fluctuate greatly, and occasionally, congestion occurs in the market.

There are several subarguments in this proposition. The major one has to do with the peculiar attributes of tax exemption as a means of attracting investor interest. Tax exemption, while it lowers the cost of borrowing, is of greatest benefit to investors in the highest marginal tax brackets. By and large, investors in the highest marginal tax brackets have only limited use for long term credit market instruments. On the other hand, the bulk of long term money is advanced by insurance companies, pension funds, and assorted thrift institutions that are either untaxed or in relatively low marginal tax brackets.

There is a limited supply of investible funds seeking tax exemption at each rate of interest. As a result, municipal bonds must be priced

to yield progressively higher returns so that all the bonds outstanding and coming on the market may find a buyer. Thus, when the supply of bonds grows in relationship to funds seeking tax shelter, municipal bond yields rise relative to other interest rates in order to appeal to investors who are less in need of tax exemption. As interest rates on municipal bonds approach those on alternative taxable investments, the market is broadened in the sense that more investors can profit from tax shelter. However, the smaller the savings from tax exemption to the issuer, the greater is the return to the investor. The ultimate extreme, of course, is when the supply of bonds so outdistances the demand for tax shelter that tax exemption loses all value to issuers and the tax-exempt and taxable bond market merge.[1]

The sign of a "good" municipal bond market from the standpoint of borrowers in a low ratio of tax-exempt to taxable bond rates. Market pressures have shown up in the municipal bond market in fluctuations in the ratio of interest rates and, from time to time, in large volumes of postponements caused by very high interest-rate bids, no bid, or voluntary withdrawals of issues. Furthermore, as discussed above, the ratio of tax-exempt to taxable bond rates is negatively associated with high levels of investment by investors in high marginal tax brackets—commercial banks and fire and casualty insurance companies. Conversely, participation on a large scale by the household sector has typically been purchased by paying high interest rates and a resulting relatively high ratio of rates.

The above discussion is a simplified presentation of some of the many real-world factors which inhibit broader investor participation in the municipal bond market. There are others. First, the municipal market is broadest at the shortest end of the maturity spectrum, since the ratio of tax-exempt to taxable yields is typically lowest in the debt with shortest maturity and rises as the years to maturity lengthen. This may reflect the preference of the high tax bracket institutional investor for short term and relatively liquid securities. It also points out that the benefits of near term tax shelter are fairly certain, but that future benefits are speculative, depending upon the future tax bracket of the holder. For individuals this can be a major reason for demanding a higher yield than one's current tax bracket might imply; much of the income on a bond held into the future may be taxed at a lower level as the investor passes beyond his peak earning period.

Another frequently cited constraint on the market for municipal bonds is the diffusion and thinness of the secondary market.[2] In part this is attributable to the serial nature of most of the securities and the comparatively large number of small issues, which make it difficult to list securities and often impossible to establish continuous price quotations for individual issues.

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[1] Analytically, this relationship whereby the investor compares the after-tax yield $r_t(1-t_m)$, where t^m is the marginal tax rate) on alternative taxable investments with that available on tax-exempts, r_e, of like investment characteristics. Investors will continue to purchase tax-exempts so long as the tax-exempt yield exceeds that available on comparable investments after taxes $r_e > (1-t^m)r_t$. When sufficient demand is forthcoming to meet the supply of bonds, then for the market rate will equilibrate at $r_t(1-t^m)=r_e$, where t^m is the marginal tax rate of investors who are at the point of indifference as to whether they purchase a municipal or a taxable bond.

[2] Very little has been written on the municipal secondary market, but see William Staats, "The Secondary Market for State and Local Government Bonds," *Vol. 3 Reappraisal of the Federal Reserve Discount Mechanism* (1972), pp. 1–24.

It may be argued that such detractions could be remedied were economic incentives sufficient, but there are several institutional and practical barriers to such a change. As a matter of fact, the serial maturity—as opposed to the term bond structure used in the corporate bond market—keeps the average maturity of municipal debt short because banks prefer to buy shorter term tax-exempt bonds and are willing to accept lower interest rates in exchange for greater liquidity. On the other hand, designing bonds for long-liver projects for too rapid a payback period and for too high a level of debt service can seriously impair the borrowers' liquidity.

Additionally, certain aspects of the Tax Code as it applies to tax-exempt bonds have been held to be prejudicial to a stronger market for municipals. In particular, the prohibition against borrowing short-term for investing in municipal bonds has been cited as contributing to lack of speculative support for the tax-exempt market on downturns.[3] The prohibition against open-end mutual funds being able to pass through tax-exempt interest income to mutual fund investors has kept financial intermediaries from supporting the market.[4] Unfavorable legislation, later upheld by a U.S. Supreme Court decision, abolished the practice of applying tax-exempt income against policyholder reserves and succeeded in eliminating in the late 1950's what had been the minor but growing interest of life insurance companies in municipal bonds.[5]

As noted, certain tax changes have acted to stimulate some demand for municipal bonds.

While certain operational characteristics of the market might be changed to reduce frictions in municipal bond transactions, few would argue that this would tap any great reservoir of new demand for tax-exempts. Furthermore, as is discussed below, expansion of tax subsidies, such as allowing more favorable tax treatment of interest costs on funds borrowed to purchase municipals, has been resisted by the Department of the Treasury. Thus, broadening the market significantly, while maintaining a favorable ratio of interest rates between taxable and tax-exempt securities, involves either tapping into some major new source of demand for tax-exempt securities, reducing the supply of tax-exempt bonds to allow the market to clear at a lower interest rate, or a combination of both. A transfer of some portion of State and local government borrowing to the larger, more stable taxable bond market could reduce the volume of bonds in the tax-exempt market. This in turn could relieve the pressure of supply against demand and lower interest rates on tax-exempt bonds relative to those on taxable securities.

Another option, of course, is to "broaden" the market by simply reducing the magnitude of the supply. This would involve limiting tax-exemption to a shorter list of allowable uses (most likely through tighter restrictions in section 103 of the code).[6]

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[3] *Ibid.*

[4] See Advisory Commission on Intergovernmental Relations, *Federal Approaches to Aid State and Local Capital Financing* (1970), p. 34; Life Insurance Company Income Tax Act of 1959 (Public Law 86–69).

[5] *United States* v. *Atlas Life Insurance Co.* (381 U.S. 233 (1965)).

[6] This of course, has already been done in the prohibition of the big-issue industrial revenue bond and the arbitrage bond. The desire to limit supply is also part of the rationale behind recent moves to outlaw or curb the use of pollution control bonds.

Akin to efforts to broaden the market for State and local securities is the desire to reduce the cyclical volatility of interest rates on municipal bonds. As noted above, the ratio of rates tends to rise in periods of stringent credit market conditions, when major institutional support wanes. This is an indication of an over-reaction by tax-exempt yields to changes in the interest rates in the larger, long-term taxable securities market. The way to reduce the volatility of rates on new-issue municipal bonds relative to those in the taxable area is to change the composition of buyers to those who have a stronger natural interest in long-term securities. But, as has been explained, these investors have little or no interest in tax-exempt securities; hence, this suggestion revolves around the transfer of State and local borrowing to the taxable bond market.

Broadening and stabilizing the municipal bond market to provide an increased flow of investible funds at generally lower and more stable rates of interest is an objective advanced primarily on behalf of the issuer of municipal bonds. But there are other—and intimately related—apprehensions about the efficiency and equity of the existing method of subsidizing municipal bond sales through tax exemption, which is discussed next.

Efficiency of the Subsidy Mechanism

A second major set of concerns arises over the efficiency of tax exemption as a method of assisting State and local governments. There are several levels of sophistication to this argument. The first is that, for better or worse, the tax-exemption of State and local governmental interest payments cannot be viewed as a subsidy because it is beyond the volition of the Federal Government to do much of anything about it, at least as it applies to the essential money-raising functions of the sovereign States and their subdivisions. Beyond the legal arguments surrounding constitutional protections, it is clear that the economic effect of tax-exemption is to lower the cost of borrowing for State and local governments. The exemption does cost something—specifically, the avoided taxes—and, therefore, is fair game for analysis on efficiency grounds.

Before discussing benefits and costs of the present system, objections to the prejudicial effect of tax-exemption upon the allocation of capital between the public and private sector and upon the use of capital versus labor in the State and local sector should also be noted. Indeed, economic theory holds that giving governments a preferential low cost of capital tends to direct investment into public capital with a lower rate of social return than capital in the higher-cost private sector. This has the overall effect of lessening total productivity of the combined public and private sectors.[7]

Besides these broader objections, there is the policy question of how efficient is the present subsidy and how might it be improved. The efficiency problem revolves around the narrowness of the tax-exempt

[7] See David and Attiat Ott, "The Tax Subsidy Through Exemption of State and Local Bond Interest." In *Part 3: Tax Subsidies* in *The Economics of Federal Subsidy Programs*, Joint Economic Committee (July 1972), pp. 305–316. The Otts roughly estimate that misallocation of capital in the state and local sector led to a reduction of income from total capital stock of $100 million, which would equal 0.25 percent of total income from capital in the period 1953–59.

market and what happens when, in order to sell bonds, tax-exempt rates must be progressively raised relative to those on comparable taxable securities. As rates rise to attract funds from taxpayers in lower marginal brackets, tax benefits spill into the laps of investors in higher marginal tax brackets and, at the same time, flow away from issuing governments. This happens because the relatively fixed supply of funds seeking tax shelter in municipal bonds at each taxable income level, forces tax-exempt securities to be priced so that total investment demand can absorb all of the bonds. From the standpoint of efficiency, it is unfortunate that the municipal borrower—facing a competitive market—cannot discriminate among buyers on the basis of their marginal rates. Thus, investors who would be attracted at lower rates still must be paid the higher rate of interest required to attract other investors on the margin of indifference between buying a tax-exempt bond or some alternative investment.[8]

This suggests that tax exemption is less than totally efficient when tax-exempt bonds are being sold at levels that make them attractive to those in less than the highest marginal tax brackets. As a result, there is a surplus of avoided Federal taxes that are not passed on to the issuer of tax-exempt securities.[9]

There have been numerous estimates of the efficiency of tax exemption, that is, the relative magnitudes of the amount of tax revenues foregone by the Treasury and the amount by which State and local government interest costs are lowered.[10] Recent estimates suggest that in fiscal 1976, of the approximately $4.8 billion in foregone Treasury receipts, $3.5 billion was passed on to State and local borrowers in reduced interest costs and $1.3 billion was retained by investors.[11] Expressed as a ratio of interest savings to foregone tax revenues, this implies a 0.73 efficiency ratio.

Since interest savings and lost revenues are not directly observable, they must be estimated and the estimates depend heavily upon basic assumptions on how the municipal bond market operates and the comparability of the tax-exempt security to other investments. First, it must be assumed that the Treasury loses an amount equal to taxes investors would have paid, were they to have invested in taxable investments of essentially similar characteristics (usually assumed to be a corporate taxable bond). However, many believe that because of its poor secondary market and other market characteristics of the tax-exempt bond, these bonds carry higher interest rates than might otherwise be expected.[12] To the extent that other tax shelters are available,

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[8] For example, when tax-exempt rates are at 80 percent of those on comparable taxable yields, this means that an investor in the 60 percent tax bracket is enjoying a before tax return equal to twice that which would be required to attract him to a tax-exempt security. This happens because bonds are having to be priced to attract investors in the 20 percent marginal tax bracket.

[9] State governments also frequently exempt interest income on their own municipal bonds and those of their subdivisions (and, sometimes those of other States) from taxation. Such exemptions face the same efficiency problems in terms of the benefits being passed on to issuers. See Huefner, *Taxable Alternatives*, pp. 170–171.

[10] For a historical review, see R. Huefner, *ibid.*, pp. 51–53.

[11] "The Municipal Bond Market: Why It Needs Help," *Congressional Record* (Dec. 17, 1975), S. 22558.

[12] For example, see Frank Morris, "The Case for Broadening the Financial Options Open to State and Local Governments—Part II, *Financing State and Local Governments* (September 1970) and David J. Ott and Allen Meltzer, *Federal Tax Treatment of State and Local Securities* (1963).

investors in higher tax brackets would require higher taxable rates to be attracted to fully taxable bonds than those involved in comparisons of tax-exempt and taxable bonds. The effect of these arguments is that the ratios used for comparison somewhat overstate the true ratio, that the subsidy is more efficient than it appears.

Another key assumption concerns the marginal tax bracket of current municipal bondholders. By and large, this presents little problem for institutional investors active in the tax-exempt market, but as noted above, there are data gaps for individuals. Recent estimates place the average marginal tax bracket at about 45 percent for all holders of tax exempts. This, of course, is well above that implied by the historical 70-percent ratio of tax-exempt to taxable rates.[13]

An important point and one frequently lost in discussions of costs and benefits of tax exemption is that the calculations of the amount of tax avoidance and interest cost savings used for the entire stock of tax-exempt debt outstanding cannot be applied to estimate results of incremental changes in investor holdings as they move between tax-exempt and taxable securities.[14] Since this point and the assumptions up on which it is based are important to understanding various proposals to improve market efficiency, the reasoning will be examined briefly.

Estimates of the costs and benefits of tax exemption on the basis of all debt outstanding differ from those based on incremental or marginal changes in outstanding debt. The main reason is that the average of the marginal tax rates for all present holders of the outstanding stock of municipal bonds (now 45 percent) is higher than the marginal tax rate of those investors who now find it just slightly more advantageous to hold tax exempts rather than some form of taxable investment (now 20 percent to 30 percent, depending on market conditions and security characteristics). These marginal investors would be those who would transfer their assets into taxable investments if the taxable rate relative to the tax-exempt rate were to rise slightly. Thus, the appropriate tax rate to apply in calculating changes in Treasury revenues generated by switching from tax-exempt to taxable investments would be the *average* of the marginal tax rates of those investors who are induced to make such a shift in their assets.[15]

In addition, the tax-exempt bond market is likely to be least efficient (the ratio of tax-exempt to taxable rates the highest) in times of generally high interest rates and tight credit. As a consequence, the level of tax avoidance is relatively greatest at the very time that the actual borrowing cost is highest for States and localities. Thus, the efficiency of the subsidy tends to fluctuate inversely with the degree to

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[13] From regulatory and survey information on holdings of municipal bonds, we can identify the weighted average marginal tax bracket of holders of tax exempts, which is approximately 0.45. Next we can solve for the implicit marginal tax bracket that equates the historical series of tax-exempt and taxable yields $(1-t^m)r_t=r_e$; therefore, $t^m=1-(r_e-r_t)$.

[14] See letter from J. Petersen and H. Galper to Congressman Henry Reuss in *Housing and Urban Development Legislation—1971*, Hearings before the Committee on Banking and Currency, U.S. House of Representatives, 92d Cong., 1st Sess. (September 1971), p. 852.

[15] For example: Were the ratio of tax-exempt to taxable bond yields to move from 0.75 to 0.65, the relevant marginal tax rate for estimating incremental revenues would be a tax rate lying approximately midway between the rates that would equilibrate the two yields. Such a movement in the yield ratio indicates an applicable marginal tax rate of 30 percent (because a rate of 25 percent would equilibrate the 0.75 ratio of tax-exempt to taxable yields and one of 35 percent would equilibrate a 0.65 ratio.

which it must be used to attract marginal investors. Also, as reviewed above, the ratio of tax-exempt to taxable rates tends to be highest and efficiency lowest at the long end of the market when interest rates also tend to be highest and where the future impact of current interest costs will be of the longest duration.

In summary, the efficiency of tax exemption has been criticized because, on average, between 25 and 30 cents of every dollar of income tax revenues foregone by Treasury is not passed on to State and local borrowers, but is retained by high tax bracket investors. The efficiency of tax exemption is lowest in times of tight money and in the long-term end of the bond market, that is when the market is narrow and the ratio of tax-exempt to taxable yields is high.

The cost to Treasury versus the benefits to State and local debtors of incremental changes in the supply of tax exempts cannot be inferred from the overall ratio of avoided taxes to reduced borrowing costs for all bonds outstanding, but rather must be calculated on the margin to those to whom tax-exemption is of the least value. This is because both theory and observation indicate that it is those investors at the margin—in the lower marginal brackets—that do the shifting between tax-exempt and alternative taxable investments.

The Tax Equity Effects of Tax Exemption

A major political argument against tax exemption has been its effect on the equity of the income tax system. There are two facets to this complaint: first, that the benefits of tax shelter are concentrated in the highest marginal tax brackets, reducing the effective progressivity of the income tax; and, second, that it discriminates horizontally among taxpayers in otherwise similar circumstances because it permits one form of economic income to avoid taxes while others are taxed. While these arguments occasionally crop up in discussions of corporate tax treatment, for the most part they are directed toward the high-income individual taxpayer.

As was discussed in a previous section on individual investors in tax exempts, the bulk of interest income on State and local securities is received by those individual taxpayers with the highest income, wealth, and marginal income tax brackets. About 50 percent of tax-exempt income is received by individual taxpayers with adjusted gross incomes that exceed $50,000 and with marginal tax brackets ranging between 50 percent and 70 percent.

It is primarily because of the concentration of tax-exempt income in the highest tax brackets that removal or significant reduction of tax exemption has been an appealing tax reform measure to many and has been proposed perennially.[16] However, the spectacle of rich investors who pay no taxes because they clip tax-exempt bond coupons, while damaging to the public's concept of tax exemption, is not accurate in the case of rational investors. Practically all investors in municipals have some taxable income (that is why they are in high marginal tax brackets!). They only seek out tax shelter income when it renders a

[16] For an historical discussion of the repeated assaults on the practice of tax-exemption, see Huefner, *Taxable Alternatives*, Chapter I.

higher return after tax than additional investment income from a taxable source.

The crux of the equity problem is not that the borrowing costs of State and local governments are subsdized by the Federal Government, but that they are subsidized through a progressive tax system that increases the value of exempted income to those in highest marginal tax brackets. Were tax exemption completely efficient in the sense that each taxpayer accepted a reduced rate of return on tax-exempt securities that just matched his foregone Federal taxes, then tax exemption would operate simply to transfer Federal payments directly from one part of the taxpaying public (those that bought tax-exempt bonds) to State and local borrowers, the intended beneficiaries of the subsidy. However, as is true generally with tax deductions or income exclusions, the value of the exclusion grows with the taxpayer's marginal tax rate. Since the supply of municipal bonds exceeds the volume of available investment funds from the highest tax brackets, the level of tax-exempt rates must be high enough, as we have seen, to attract lower tax-bracket investors. Thus, investors in tax brackets above the marginal rate that clears the municipal bond market—say, those above the 30 percent bracket—enjoy a surplus of tax-exempt income above that which would just match the Federal taxes they would have to pay on income from a taxable investment. Because the exemption means a loss of tax revenues in excess of the value of the tax subsidy to borrowers, it also means that taxpayers who do not purchase tax exempts must subsidize those who do by making up the difference.

The real rub of tax exemption's effect on the progressivity of the tax system does not revolve around the existence of tax-exempt income or its receipt by a particular income group. Rather, the problem is that taxes avoided exceed the lowered borrowing costs and that the benefits of that excess are concentrated in the highest brackets and increase in proportion to the level of the tax bracket.

This aspect of tax exemption's impact on equity is important because it underscores a benefit of reforms that improve the efficiency of tax exemption (by reducing the ratio of their rates to those on taxable securities). The benefit is that such reforms will also reduce the amount of tax shelter retained by investors and will increase the progressivity of the tax system.

The argument against the horizontal equity effects of tax exempts is that within an income class, the exemption of interest discriminates among taxpayers with different sources of income. This objection assumes that the policy objective should be to subsidize the cost of capital to State and local governments. It is relevant only to the extent that there are barriers to individuals being able to invest in municipal bonds or that the resulting dispersion in effective tax rates within a given income class is inherently unfair. But aside from tax-exempt investment's requirement of a modicum of wealth—and a predictable level of taxable income high enough to justify seeking tax shelter—there seems to be nothing especially prejudiced about municipal bonds from the standpoint of horizontal equity.

In summary, improving the equity effects of tax exemption is directly related to improving efficiency, so long as subsidizing the cost of

State and local borrowing is seen as desirable. Complete removal or cutting back on the exemption through partial taxation or allocating deductions against tax-exempt income brings greater progressivity to the Federal tax system, but at the cost of increased borrowing costs for State and local governments. To improve the tax equity of tax exemption while retaining benefits of lower borrowing costs for governments requires a method of transferring the Federal subsidy other than the exemption of interest income.

Improving Marketability and Creditworthiness

The target here is to lower the cost of capital or to make borrowing possible for certain classes of borrowers. There are two problems that policy might seek to overcome: (1) Removing barriers in the existing marketplace that unfairly or inefficiently penalize certain borrowers, or (2), if the market is already operating in an optimal fashion, then changing its terms and conditions for certain borrowers. The latter justification implies one of two things. Either the purpose for which funds are to be borrowed is of high social priority deserving a subsidy, or society should offset a lack of intrinsic creditworthiness in the borrower by absorbing some or all of the risks normally left to private investors.

The municipal bond market, although dealing in governmental securities, is a private market that rations private capital by matching return versus risk. It is not surprising that borrowers who demonstrate the least ability to repay are asked to pay the most. Until recently, the trend in the market, because of the low historical incidence of default in the state and local sector, has been to reduce interest cost differentials among various quality classes of municipal borrower.[17] Still, there has remained a group of problem borrowers, normally considered to be the very large cities or the very small local government issuers.

As noted, many very large borrowers now must contend with credit problems. In addition, there appear to be problems in the efficient marketing of large and frequent issues because of the depressing influence of oversupply and a lack of bidding competition, especially in times of tight money. Very small issuers also have problems, attributable primarily to lack of borrower sophistication, a nonexistent secondary market, and the absence of economies of scale in the marketing of small issues, and, occasionally, insufficient bidding competition. There may also be a somewhat greater intrinsic credit risk for small issues.[18]

Some states have taken active steps to assist smaller issuers in their bond marketing practices. A prime example is the state bond bank that bundles smaller issues in an effort to permit economies of scale and to spread risk throughout a portfolio of underlying loans. Others have gone a step further and devised sundry loan guarantee and insurance programs for local borrowers. There are also private municipal bond insurance programs.[19]

At the Federal level, assistance to problem borrowers raises the same issues involved in any Federal program, but are complicated by prob-

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[17] Forbes and Petersen, "Cost of Credit Erosion," p. 12.
[18] Petersen, *The Rating Game*, pp. 132–135.
[19] *Ibid.*, pp. 135–139.

lems discussed above in conjunction with tax exemption. Furthermore, state and local governments have been leery of Federal aids that bring Federal participation in their financing decisions, unless there is absolutely no alternative source.

Federal credit assistance can take several forms: Debt service subsidies to lower effective interest cost to borrowers; direct loans at subsidized levels; loan guarantees to assure payment in case of default; and loan insurance programs to which borrower or lender or both contribute a premium.[20] All have been used to assist State and local borrowers at one time or another.

The use of credit assistance, while of obvious help to assisted units, normally involves costs for unassisted borrowers—including the taxpayer at large. First, there is the problem of "leapfrogging" borrowers that normally would pay a higher cost to a preferred position by virtue of subsidized loans or guarantees. This can place pressure on other borrowers of superior credit quality to step down a notch in the credit quality ladder and lower the cost of borrowing. Second, to the extent that borrowers who would not borrow otherwise are given assistance to do so, then pressure on the market increases and interest rates for the remainder of the market go up. Insurance programs have the drawback of being very expensive if the premium is based on true risk or being a subsidy if they are not. And, since they too interpose a reduced credit risk between borrower and lender, they can lead to the leapfrogging phenomenon and operate to the relative disadvantage of the unassisted borrower. Last, there is the traditional complaint that insulation from the private market leads to a lack of fiscal discipline, while inclusion in a Federal program leads to redtape, delay, and Federal domination. But, direct loans, while they involve the maximum of involvement, also appear to be the most efficient and straightforward method of assistance.

Federal direct loans and, to a lesser extent, interest subsidies are frequently frowned upon because they lead to budget outlays as opposed to various guarantee and insurance plans that can go off the budget. The budget impact problem is frequently solved by creating an off-the-budget agency and declaring its debt not that of the Federal Government.

These arguments against Federal credit assistance do not generally preclude the desirability or necessity of such assistance in special circumstances that are clearly beyond the scope of the private market. In fact, the arguments suggest the designing of special assistance programs to meet such cases as efficiently as possible to account fully for the cost involved, and to have the least troublesome side effects for other borrowers.

Recent Proposals for Federal Credit Assistance to State and Local Governments

The last session of Congress, in grappling with the New York crisis, brought forward many proposals to broaden and stabilize the municipal bond market or to assist particularly hard-pressed local govern-

[20] See Joint Economic Committee, *Economics of Federal Subsidy Programs:* A Staff Study (January 1972), pp. 31–35.

ments. As has been noted, these are two distinct, if interrelated, purposes and the differences should be apreciated in the discussion of the economic and political efficiency of such proposals.

State and local issuers as a group traditionally have been wary of Federal credit assistance. Their wariness springs from several sources: a fear of undermining tax exemption, of becoming involved in redtape and delays, and their desire to maintain autonomy as to borrowing and capital outlay decisions. These views usually are shared by those who underwrite and trade municipal securities, with the particular emphasis that a private competitive market—one consisting of many buyers and sellers—should be the centerpiece of the state and local capital raising mechanism. These views have been cemented, therefore, around the preservation of the existing tax-exempt market and the subsidy it entails, which in almost any circumstances still provides state and local borrowers with the maximum autonomy in decision-making and the lowest cost of capital in the financial markets.

The concerns of issuers, dealers, and investors were aroused in 1969 when Congress steered a course toward partially taxing municipal bonds, in effect offering State and local governments a subsidized taxable bond in exchange. They were kept kindled in the subsequent 2 years when the administration and Congress began proposing and, on occasion, creating various new agencies and lending programs to finance certain State and local activities. A perennial proposal was (and continues to be) creation of a special agency, "Urbank," as it is usually captioned, to provide direct loans to eligible governments who could not find reasonable accommodation in the capital market.[21] This led to difficult questions as to eligibility, control of subsidy levels, and how the agency might compete with conventional sources of capital.[22] At that time, there was a deep concern that the tax-exempt bond market either would be swallowed up by a massive federally sponsored bank or taken down in detail by an array of separate lending programs. Furthermore, State and local governments were worried that hard dollar grants would be replaced by soft loans on guarantees; in other words, that Federal credit assistance would become a substitute for grants.

Thus, in the early 1970's, with the market disruptions of tight money and tax reform still fresh in memory and the developing threat of Federal credit programs close at hand, various interested parties—issuers, industry, and academic—examined the relationship between Federal credit assistance and the traditional tax-exempt market. There were differences in detail, but a consensus began to emerge that such assistance should be consistent with the following criteria:

1. Use of any Federal credit assistance programs by State and local governments should be entirely voluntary.
2. Such assistance should be free of Federal interference and intervention in matters of State and local concern.
3. Such assistance should be simple, dependable, and free of delay.

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[21] Urbank derives from the National Urban Development Bank proposed in 1968 by President Johnson's Task Force on Urban Problems. For a general description of the mechanism, see Charles Haar and Peter Lewis, "Where Shall the Money Come From?" *The Public Interest* (Winter 1970).

[22] See Remarks by Senator William Proxmire, *Congressional Record* (Feb. 22, 1972), S. 2202.

4. Such assistance should not be viewed as an alternative to Federal grant assistance where the latter is appropriate and necessary.

These similar criteria were set forth by the National Governors' Conference and supported by the National League of Cities, the National Association of Counties, the Municipal Finance Officers Association, and the Securities Industry Association.[23]

Applying those criteria, the various groups began to focus on particular aid mechanisms. Cognizant of the difficulties of exclusive reliance on tax exemption and hostile to direct credit assistance, several groups moved toward the proposition that a properly designed and administered taxable bond option could meet those criteria. Approaching the question from a defensive posture, many were agreed that it was at least preferable to Federal taxation of traditional tax-exempt bonds or to continuation of the proliferation of Federal lending programs. Others were convinced that the option had strong positive advantages in terms of lowering borrowing costs, increasing the efficiency of tax-exemption, and providing stability to the market. The particulars of the option's operation and its ability to meet various policy targets have been discussed exhaustively elsewhere.[24] In April 1973, the Treasury introduced a taxable bond option as one of its tax reform proposals of that year. However, soon thereafter attention began to shift away from the option and the threat of Federal credit assistance programs. The stream of special agency proposals receded and the municipal bond market, while not without pressures, generally performed well. Furthermore, opposition arose to the taxable bond option idea, either on the grounds that it would not work, or if it did, that the Federal Government—by intent or circumstance—would use an option to entrap State and local governments and then would withdraw tax exemption, leaving them at the mercy of the direct subsidy program.[25]

In response to the fiscal problems of New York City and other municipal borrowers, several bills were proposed in 1975 to provide a means by which States and localities could borrow, either to avoid outright default or to improve their marketability and reduce their interest costs. Such proposals can be divided into two groups: creation of a Federal Government agency designed to purchase, refinance and remarket municipal debt instruments; and authorization of emergency loan guarantees to State and local governments.

Despite certain mechanical differences, all of the proposals sought to provide a bridge of stronger credit between the lender and the borrower, thereby reducing the former's risk and the latter's cost of borrowing. Most contemplated direct assistance and all called for direct Federal assessment of the borrower's financial conduct.

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[23] See statements of the above cited groups in *Federal Financing Authority*, hearings before Senate Committee on Banking, Housing, and Urban Affairs (May 15–17, 1972).

[24] The literature on the taxable bond is large and continues to grow. An intellectual and political history of its development is detailed in Robert Huefner, *Taxable Alternatives;* the theoretical model of the subsidy is developed rigorously and empirically by H. Galper and J. Petersen, "An Analysis of Subsidy Plans"; an extensive discussion of its operation and desiderata is found in Committee on Ways and Means, U.S. House of Representatives, *An Alternative to the Tax Exempt Bond: Panel No. 8* (Feb. 23, 1973); and extensive quantitative analysis of the subsidy impacts have been done in Peter Fortune, "The Impact of Taxable Municipal Bonds: Policy Simulations With a Large Econometric Model," *National Tax Journal* (March 1973).

[25] See Grady L. Patterson, "The Case Against Tampering With Tax Exemption," *Bulletin*, Municipal Finance Officers Association (January 1975).

As noted above, there are several potential problems with direct assistance programs including the market impacts on unassisted borrowers and the direct intervention of Federal authorities in setting eligibility, terms and conditions of aid, and ensuring that the Federal loan or guarantee is adequately protected. While this level of involvement was viewed as unfortunately necessary in the case of a lender of last resort to one on the brink of default, it was not viewed as desirable as a basis for assistance to State and local governments in general.

Exhibiting a sensitivity to these reservations about direct Federal credit assistance and looking for ways to revive the market as a whole, first Treasury and then Senator Kennedy and Congressman Reuss revived the taxable bond option.[26]

Reducing the Supply of Tax-Exempt Bonds

With limitations on demand for tax-exempt securities, another way to improve the market for them is to reduce the supply. Here too, there is a Federal role; not by using the carrot of a subsidy to accomplish a transfer of debt to taxable status but rather the stick of disallowing the use of tax exemption for certain purposes. The likely targets are those industrial assistance bonds that have retained tax-exempt status.

A major way to reduce the volume of tax-exempt debt is by amending section 103 to deny tax exemption for certain uses. Leading examples of this in the past are the large issue industrial revenue bond and arbitrage bonds. As was noted, the prohibition of industrial bonds in 1969 was not complete. Several purposes are excepted from the prohibition, including issues sold on behalf of corporations for pollution control. Furthermore, conventional industrial development bonds are permitted to be sold if they were below $5 million in size and met certain other conditions. These and other exceptions have grown rapidly and the large volume of financing for such purposes in the tax-exempt market has a depressing effect on that market.

Essentially all public interest groups and the Securities Industry Association have adopted positions calling for the elimination or at least a major cutback of the pollution control bond and its replacement by a more efficient subsidy vehicle. Other uses of tax-exemption have been publicly criticized from time to time, especially advanced refunding bonds, which can lead to a multiplication of outstanding tax-exempt debt for a particular project.[27]

In summary, the restriction of the supply of tax-exempt debt helps those borrowers and users that remain in that market, simply because the value of tax exemption is less diluted.

By the same token, credit assistance plans, either specific or general, that increase the supply of tax-exempt bonds without in some way increasing demand for them will lead to higher rates, relatively, in that market.

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[26] The Kennedy-Reuss bill was jointly introduced in December 1975 as S. 2800 and H.R. 11214. Hearings on the House proposal were held Jan. 21, 22, and 23, 1976, by the House Committee on Ways and Means.

[27] Lennox Moak, *Outline of Statement*, testimony before the Joint Economic Committee, *Hearings on the Financial Condition of Cities* (June 20, 1975).

Chapter IX. CONCLUSION AND POSTSCRIPT

At the outset of 1976, the municipal bond market was faced with an inordinate number of uncertainties. It also was the object of an unaccustomed amount of public attention. Much of the commotion was the result of the recurring New York City financing crises of the previous year—the lessons of which many hurriedly were attempting to learn and apply elsewhere. But there were other, deeper anxieties. These grew out of complex and often confusing arguments over the appropriate size and future capacity of the tax-exempt market and over the extent of involvement of the Federal Government in the borrowing decisions of States and localities.

In January, the Ways and Means Committee of the House of Representatives held hearings on the taxable bond option proposal sponsored by Senator Edward M. Kennedy and Congressman Henry Reuss. Testifying in support of the taxable bond option were the U.S. Treasury, the American Bankers Association, various tax reform groups, and the National League of Cities and U.S. Conference of Mayors. While the mayors and cities favored the plan, the other State and local organizations looked on apprehensively. Their earlier opposition to the idea had obviously softened, as they became more convinced of the economic logic of the option and more worried about the future capacity of the traditional market. But, many still were hesitant to embrace Federal participation in the marketing of municipal securities which a direct subsidy payment would require. Others continued in staunch opposition.[1] In light of the changing mood of the intended beneficiaries of the taxable bond option reform, it appeared likely that the option would be reported by the Ways and Means Committee and might possibly have its market-broadening promises tested before the year was out.

On other fronts, however, the State and local governments definitely were on the defensive. In December 1975, the House and Senate passed differing versions of the municipal bankruptcy amendments. The rush to amend the Federal bankruptcy statutes came in response to the New York City crisis, and the obvious impracticability of existing bankruptcy procedures. Although the administration-sponsored legislation had been aimed at New York City, the scope of the bill, as it raced through Congress, was expanded to include all local governments. But, these governments and the municipal bond industry steadfastly opposed the new bankruptcy legislation. There was a storm of protest both from Government officials and bond dealers who thought that the integrity of their credit and merchandise, respectively, was being unfairly impugned by the bankruptcy amendments. The bankruptcy bills bogged down in conference in December. The Treasury Department, desirous of having the bill pass, under

[1] See statements before U.S. House Ways and Means Committee, "Hearings on Proposals Relating to Tax-Exempt Bonds" (Jan. 21–23, 1976).

pressure from issuers and aware of adverse market reaction, successfully lobbied the conference committee to have the eligibility provisions of the bill stiffened. This unusual procedure was an effort to reassure investors that getting out from "under" governmental debt obligations would be neither an easy nor a commonplace event.[2]

Methods of reducing the supply of tax-exempt securities—other than the optional substitution of taxable for tax-exempt securities—were also being explored. Several of those who testified on the taxable bond option before the Ways and Means Committee pointed out that removal of the pollution control bond would ease supply pressures in the municipal bond market.[3] Furthermore, the Internal Revenue Service moved to curtail the use of tax-exempt securities by not-for-profit corporations.[4] Under existing regulations, such entities may issue tax-exempt bonds on behalf of governmental units even though they themselves do not possess governmental powers. The newly proposed regulations impose stricter requirements on the relationship of such authorities to governmental units and, thereby, restrict tax-exempt financing by private, not-for-profit corporations. The new regulations would require large scale and, perhaps in some cases, impossible statutory revisions of the structures of many industrial development, educational, and health and hospital authorities. Thus, their publication stirred strong protests from the affected parties.

Nowhere were the repercussions of the New York trauma more visible than in the new-found sensitivity of bond dealers and investors to municipal credit quality and how information about credit quality should be disclosed. Throughout the fall of 1975, as the extent both of New York's budget gimmickry and the fiscal difficulties of other large cities became evident, the municipal bond market became increasingly anxious about the level and quality of credit information. This was heightened by dealers' recognition that they were subject to the antifraud provisions of the Federal securities laws. While State and local issuers, and other market participants, also had responsibilities for disclosure, they were not subject to direct regulation of the Securities and Exchange Commission. A major problem, ironically, was that there were no clear precedents regarding fraud by issuers; neither court decisions nor SEC actions had defined the responsibilities and liabilities of underwriters, issuers, and other participants under the securities laws. The filing of lawsuits in August by aggrieved New York City bond purchasers, broad allegations of fraudulent behavior from various congressional and SEC sources, and the inclusion of dealers under Federal securities regulation in December served to exacerbate the tensions.

Although the market continued to function at a record-setting volume, several postponements of planned offerings did occur because

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[2] "Report Agreement on Changes in Municipal Bankruptcy Bill," *The Daily Bond Buyer* (Feb. 19, 1976), p. 1.

[3] As the Public Finance Division of the Securities Industry Association expressed it: "This committee can act to reduce municipal borrowing costs and increase the efficiency of the tax-exempt market by returning the market to exclusive use of public state and local governmental issuers. We ask this committee to eliminate private pollution control and industrial development financing from the tax-exempt market." Statement before the Ways and Means Committee (Jan. 21, 1976), p. 5. See also at the same hearings, the statements of the Municipal Finance Officers Association (Jan. 22, 1976), and the Tax Foundation (Jan. 23, 1976).

[4] Department of the Treasury, "Interest Upon Obligations of States, Territories, Etc." *Federal Register* (Feb. 2, 1976), p. 4829.

of disclosure or credit problems. Underwriters asked for large profit spreads as insurance against uncertainties, and bond issuers saw fewer bids or an insistence by underwriters upon negotiated offerings. To add to the torment, New York State as part of the New York City "solution" in November, passed a moratorium law that forced holders of $1.6 billion in maturing New York City notes to swap or extend these securities. In January, the SEC took the highly unusual step of announcing an investigation of New York City for possible violations of the Securities Acts.[5]

The following month, the Securities Subcommittee of the Senate Banking Committee held three days of hearings on measures to bring the issuance of municipal bonds within the regulatory skein of the SEC. The proposal that got the most attention, Senator Harrison Williams' Municipal Securities Full Disclosure Act, S. 2969, called for issues of $5 million or more to meet disclosure standards at the time of sale along lines drawn by the Commission. Similarly, issuers with more than $50 million in debt outstanding would have to make audited annual reports. Accounting standards for the area would be set by the SEC.

Reactions to the regulation plan varied, but from the governmental issuers there was distress over the cost and controls of regulation and concern about the unresolved questions of legal liability. However, it was clear that more information, whether by market forces or government fiat, would be forthcoming in the municipal bond market.

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[5] SEC press release, Jan. 17, 1976.

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